

Handbook of Economic History

OCR text recognition Max Stirner Archive Leipzig - 27.09.2023

Handbook of Economic History

published by the Institute for Economic History of the Academy of Sciences of the GDR

VEB Deutscher Verlag der Wissenschaften Berlin 1981

Volume 1

Editorial board

Hans Radandt (Chairman)

Peter Musiolek (Deputy Chairman)

Siegfried Epperlein

Thomas Kuczynski

Manfred Nussbaum

Jörg Roesler

1 The page numbers in this table of contents are wrong oopsies.

Table of Contents¹

Foreword	6
Introduction	9
The structure of section 1	9
On the periodization of economic history	9
The subject classification within the modes of production	16
1. economic history in the system of sciences	20
1.1 Economic history as a scientific discipline	20
1.1.1 Science and objective reality	20
1.1.2 Nature and society	24
1.1.3 The historical moment in objective reality	25
1.1.4 The social productive forces	26
1.1.5 The mode of production of human society	27
1.1.6 Economic history and political economy	28
1.1.7 The special fields of economic history	34
1.1.8 The neighboring sciences of economic history	37
1.1.9. basis and superstructure	39
1.1.10. Economic history and universal history	40
1.2 Political economy	47
1.2.1 Introduction: object of study, political economy and economic history	47
1.2.2 Object and subject of political economy	48
1.2.3 The internal structure of political economy	49
1.2.4. "Logical" and "historical" in the analysis of the fundamental production relation (property relation.	51
1.2.5 "Logical" and "historical" in the analysis of the production relations of mediated production	54
1.2.6 The theoretical analysis of the functional mechanism of economic social systems	55
1.2.7 Political economy and economic history. The "logical" and "historical" in the method of cognition of modes of production	57
1.3 Special fields of economic history	61
1.3.1. agricultural history	61
1.3.2. financial history	68
1.3.3. history of forestry	73

1.3.4. geographical economic history	80
1.3.5. history of the capitalist world economy	84
1.3.6. history of trade	90
1.3.7. industrial history.....	97
1.3.8. mining history	104
1.3.9. history of transportation	112
1.4 Neighboring sciences of economic history	119
1.4.1. archaeology	119
1.4.2. industrial history	121
1.4.3. demography	123
1.4.4. ethnography	127
1.4.5. geography	129
1.4.6. history of the labor movement	131
1.4.7. historical studies	133
1.4.8. historiography of the natural sciences and mathematics	136
1.4.9. Historical anthropology	138
1.4.10. History of art	140
1.4.11. Literary studies	145
1.4.12. Metrology	147
1.4.13. Military history	149
1.4.14. Numismatics	151
1.4.15. Law	154
1.4.16. Sociology	157
1.4.17. Linguistics	159
1.4.18. Statistics	162
1.4.19. History of technology	163
1.5 Historiography, sources, working methods	166
1.5.1 Historiography of economic history	166
1.5.1.1 The prehistory of economic historiography	166
1.5.1.2 Stage theories of economic development	168
1.5.1.3 Monographs and branches of economic history	175
1.5.1.4 The German Historical School	181
1.5.1.5 More recent trends in the 20th century.	185
1.5.1.6 Journals on economic history	190
1.5.2 Sources on economic history	192
1.5.3 Working with economic history sources using the example of the capitalist mode of production	204
2. economic history as a concrete-historical process	214
2.1 Primitive social mode of production	214
2.1.1 General characterization of the pre-social mode of production	214
2.1.2 Exchange and transportation	222
2.1.3 Property relations	227
2.1.4. forms of society	232
2.1.5. crafts	237
2.1.6. hunting and gathering	244
2.1.7 Warfare as an economic factor	248
2.1.8 Agriculture	250

2.2 Ancient Near Eastern mode of production	257
2.2.1 General characteristics of the ancient Near Eastern mode of production	257
2.2.2 Mining	263
2.2.3 Property relations	265
2.2.4 Money, monetary system	272
2.2.5. trade and transportation	274
2.2.6. crafts	280
2.2.7. class relations	286
2.2.8 War, warfare as an economic factor	292
2.2.9 Agriculture	295
2.2.10. The state as an economic factor	304
2.2.11. City	309
2.3 Ancient mode of production	314
2.3.1 General characterization of the ancient mode of production	314
2.3.2 Mining	318
2.3.3 Property relations	322
2.3.4 Money, monetary system	326
2.3.5. trade and transportation	331
2.3.6. crafts	337
2.3.7 Class relations	344
2.3.8. colonate	350
2.3.9. colonization	353
2.3.10. War, warfare as an economic factor	357
2.3.11. Agriculture	361
2.3.12. The state as an economic factor	369
2.3.13. City	375
2.4 Feudal mode of production.....	381
2.4.1 General characterization of the feudal mode of production	381
2.4.2 Agricultural productive forces	391
2.4.3 Mining and metallurgy	403
2.4.4 Population	412
2.4.5 Property and class relations in the countryside	419
2.4.6 Property and class relations in the city	428
2.4.7 Feudal state and economy.....	438
2.4.8. early capitalism	446
2.4.9. monetary system	456
2.4.10. Trade	461
2.4.11. Crafts	469
2.4.12. Colonialism	475
2.4.13. Military and economy	482
2.4.14. Transportation and communications	487
[11]1 1 "Fette"	

Introduction

A handbook intended to inform the reader about economic history as a scientific discipline and, above all, about economic history as a concrete historical process on a global scale, requires not only a well thought-out structure, but also a structure that is explained to the reader.

First of all, a distinction must be made between the subject being researched by a science and this science itself. Accordingly, section 1 of the handbook examines economic history in the system of sciences and in section 2 the object of research in economic history is presented in concrete historical terms.

The structure of section 1

Section 1.1 introduces economic history as a scientific discipline. Because, in the opinion of the editorial board, economic history is not an independent science, but rather a sub-science which, together with political economy, forms economic science, political economy as a scientific discipline is presented separately in 1.2.

The economic historian examines the economy as part of objective reality. Because the economy is a self-contained whole, a large number of specialized fields have emerged in the course of the development of economic history as a scientific discipline. These are dealt with in 1.3., whereby the editorial board was faced with the difficult task of clarifying what special fields actually are (see also 1.1.7.).

In the course of compiling the handbook, it also became clear that there is a difference between working on the specific research subject of a special field and reflecting theoretically on this special field; for example, although the section on "crafts" is represented in almost all production methods, no scholar felt able to present the special field of "craft history".

Because the economic historian never works for himself and never examines his object of study, the economy, "in itself", the neighboring sciences of economic history are discussed in 1.4. Again, these neighboring disciplines are not presented "in themselves", but primarily in their significance for the economic[16] historian. The great difficulty faced by the authors and editors was and is that there are hardly any scholars who are equally at home in economic history and in a neighboring discipline. For this reason, this section contains both articles which, starting from economic history, present the role and significance of the respective neighboring science (these were mostly written by economic historians) and articles which, starting from the neighboring science, strive towards the same goal (these were mostly written by neighboring scientists). The originally planned treatment of the interrelationships between economic history and neighboring sciences was only possible in individual cases, not least because of the very limited space available to the authors. Anyone who misses philosophy in the table of contents for 1.4. should refer in particular to 1.1., as the role and significance of Marxist-Leninist philosophy as a general methodology of the sciences and as the world view of the proletariat cannot, in the opinion of the editorial board, be compared with that of any neighboring science and is therefore always presented in concrete terms, especially in 1.1.

In 1.5. those special areas of economic history are presented which are not concerned with the economic processes themselves, but deal with questions of historiography, sources and finally the working methods of economic history.

The periodization of economic history

The task of the economic historian is to give a historical account of the object of his research, the mode of production. Therefore, the structure of the concrete-historical part of this handbook is initially a historical one. We refer to such a historical structure as periodization, which will be explained below.

The first question we have to ask ourselves is what is actually to be periodized. This question can be answered unambiguously on the basis of the available factual material and its theoretical processing: In accordance with the object of research in economic history, it is a matter of distinguishing between different modes of production in human society, which should provide the basis for a periodization of economic history. The periodization presented here is therefore not a purely chronological one, since in

the last five thousand years of human history there have always been several modes of production at the same time, which have had a reciprocal effect on each other and modified themselves to a greater or lesser extent in the process. Nor is it a technocratic-technicist periodization in the manner of industrial society theory, which distinguishes between so-called primitive, agrarian, industrial and post-industrial societies. However, if carried out correctly, it should provide the basis for a periodization of human history, since the "mode of production of material life determines the social, political and spiritual life process in general" [MEW 13: 8 f.].

However, if we ask ourselves a second question, namely which modes of production we have to distinguish in history, we have already reached a point that has been the subject of heated debate for years and decades. Of course, this question can only be answered conclusively if we say what we have to distinguish between the modes of production, i.e. if we specify the criteria according to which [17] we can clarify what a mode of production actually is.

The general characterization of a mode of production expresses, in short, how people appropriate the nature around them. This how is twofold: it includes the question of how people work, with which? It includes the question of how people work, by what means - whether with simple tools or with modern machines - and it includes the question of how people work, under what conditions - whether as free producers or as exploited workers. But no matter which of the two points of view we focus on, it is always the position of the working person in the production process that determines the character of a mode of production.

In this sense, we must first distinguish the "prehistory of human society" [MEW 13: 9] from its actual history, a time in which "men make their own history with full consciousness" [MEW 20: 264]. For the shaping of the production process in this period, Marx predicted: "Labor no longer appears so much as included in the production process, as man rather relates to the production process itself as a guardian and regulator ... He steps alongside the production process instead of being its main agent." [MGr 592 f.] And further: "Then, on the one hand, the necessary labor time will have its measure in the needs of the social individual, and on the other hand, the development of social productive power will grow so rapidly that ... the disposable time of all will increase. For the real wealth is the developed productive power of all individuals. It is then no longer working time, but disposable time that is the measure of wealth." [MGr 596]

It may be considered unjustified to begin the explanation of the periodization made in this handbook by contrasting the entire economic history of mankind presented in it with an economic history of the future that has not yet been experienced by mankind, an economic history that is not the subject of this handbook. But we must not forget that "with the seizure of the means of production by society", which takes place in the socialist revolution, a very decisive precondition for the shaping of this economic history of the future, a communist economy, is created: "The anarchy within social production is replaced by planned, conscious organization. The struggle for individual existence ceases. Only then does man, in a certain sense, finally separate from the animal kingdom, emerge from animal conditions of existence into truly human ones." [MEW 20: 264] And from this it follows not only that we have to distinguish the socialist mode of production, in which all this is prepared and takes place, from all other modes of production, but also why we present it in such detail in this handbook. Because the sixty years,

The sixty years that have elapsed since its first beginnings account for only one hundredth of one percent of the history of mankind, but their presentation makes up almost a quarter of the concrete-historical part of this handbook.

As Marx, quoting Morgan, notes, the "return of modern societies to the 'archaic' type of common property" begins with the socialist revolution: "... the new system towards which modern society is tending 'will be a revival of the archaic type of society in a superior form'. But one must not be too much frightened by the word 'archaic'." [MEW 19: 386]

[18] The birth of this archaic type of society, that is where the economic history of humanity begins, where the concrete-historical part of this handbook must accordingly begin, and its rebirth on a higher level, this process - still far from complete - is to be described in the last section of our handbook. The decisive difference between the two "types of society", between the original socialist and socialist or communist mode of production, becomes particularly clear to us not in direct comparison, but when we consider the latter as a negation of the modes of production that form the economic basis of class societies, and understand these in turn as a negation of the original socialist mode of production. An essential characteristic of the centerpiece of this dialectical triad - the modes of production that form the economic basis of class societies - is "the theft of other people's labor time, on which the present wealth is based" [MGr 593]. This theft does not take place in primitive society - apart from a few moments in the period of its decay - and cannot take place at all, because labor time must be almost completely utilized for its own reproduction, consists almost exclusively of necessary labor time, so that there is no constant surplus product for the reproduction of others. This theft does not take place in socialism and communism - apart from a relatively short period of transition from capitalism to socialism: "The surplus labor of the masses has ceased to be a condition for the development of general wealth, just as the non-labor of the few is a condition for the development of the general powers of the human head. Thus production based on exchange-value collapses, and the immediate material process of production itself is stripped of the form of necessity and antagonism. The free development of individualities, ... the reduction of the necessary labor of society to a minimum, which is then followed by the artistic, scientific, etc., training of individuals through the labor necessary for them. This corresponds to the artistic, scientific, etc. education of individuals through the time and means made available to them all." [MGr 593]

If we consider the mode of production in which no surplus product existed as the prehistory of humanity and the mode of production in which the surplus product exists and is socially produced and appropriated as the actual history of humanity, then a relatively small period of approx. 5,000 years lies between the two modes of production, which, in relation to humanity, we can describe as its prehistory in the narrower sense (see also [8: 50]).

Even though we will have to deal with these two modes of production again below, namely with the question of their further subdivision, we will first turn to the problem of how to periodize this "very short transitional period", which makes up almost seventy percent of the concrete-historical part of this handbook. In the preface to his work "On the Critique of Political Economy", Marx states: "In broad outline, Asiatic, ancient, feudal and modern bourgeois modes of production can be described as progressive epochs of the economic formation of society." [MEW 13: 9] A glance at the table of contents of this handbook shows that the editorial board has adopted precisely this periodization from Marx, except that the Asiatic is described as the ancient oriental and the modern bourgeois as the capitalist mode of production.

However, before we present a more detailed justification for this periodization based on Marx, it should be emphasized once again that the modes of production he mentions all form the economic basis of class societies, i.e. societies based on the exploitation of the

exploitation of man by man [19] and are expressly described by him as progressive epochs of economic social formation. As builders of a new, classless society, confronted with an imperialist system that has become thoroughly reactionary and misanthropic in every respect, we all too often succumb to the temptation to view the prehistory of our society with disdain. "Time devalues the world ..." says Horace - but this sentence must never be valid for those who understand history as a dialectical process. We can assume that the reader is familiar with the passage from the "Communist Manifesto" that begins with the sentence "The bourgeoisie has played a most revolutionary role in history" and ends with the statement "what earlier century suspected that such productive forces slumbered in the womb of social labor", a passage that has not unjustly been called a "hymn of praise to the achievements of the bourgeoisie". But let us go back one, two or three thousand years further: "It was slavery that made the division of labor

between agriculture and industry possible on a larger scale, and with it the flowering of the ancient world, the Greek state. Without slavery there would have been no Greek state, no Greek art and science; without slavery there would have been no Roman Empire. But without the foundation of Greece and the Roman Empire, there would be no modern Europe. We should never forget that our entire economic, political and intellectual development is based on a condition in which slavery was as necessary as it was generally recognized. In this sense, we are entitled to say: without ancient slavery, there is no modern socialism. It is very cheap to talk about slavery and the like in general terms and to pour out a high moral fury about such shameful things. Unfortunately, nothing more is said than what everyone knows, namely that these ancient institutions no longer correspond to our present conditions and our feelings determined by these conditions. But it does not tell us anything about how these institutions came into being, why they existed and what role they played in history. And if we go into this, we must say, as contradictory and heretical as it may sound, that the introduction of slavery was a great step forward under the circumstances of the time. It is a fact that humanity began with animals and therefore needed barbaric, almost animalistic means to work its way out of barbarism." [MEW 20: 168] Only in a classless society, Marx believed, will "human progress no longer resemble that hideous pagan idol that only wanted to drink the nectar from the skulls of the slain". [MEW 9: 226]

It is from this perspective that we also want to look at the problem of the periodization of economic history as it develops under the conditions of class society. However, attention should be drawn to a fundamental problem of every periodization, which Lenin formulated as follows: "In the world there is no 'pure' capitalism and there can be none; there are always admixtures of feudalism, of petty bourgeoisie, of something else." [LW 21: 231]. [Marx looked at the same problem from its "positive" side: "In all forms of society it is a certain production which assigns rank and influence to all others, and whose relations therefore also assign rank and influence to all others. It is a general illumination in which all other colors are immersed and [which] modifies them in their particularity." [MGr 27] In capitalism, it is industrial production that puts its stamp on all the others, but of course there is still pre-capitalist - agrarian as well as artisanal - production. These "admixtures" must remain outside our consideration in the following; it can only be a matter of clarifying the sequence of [20] modes of production as the "logic of history", in its ideal average, so to speak.

Of the modes of production that form the economic basis of class societies, the capitalist mode of production stands out. Regardless of how one periodizes the economic history of class societies, capitalism is always emphasized as a special period. So if, on the one hand, we consider all class societies uniformly from the point of view that they are negations of the original classless society, then, on the other hand, it turns out that the law of negation of negation is not a schema: the negation of the historically first class society is by no means already the communist classless society, but another, more highly developed class society, in which only certain fundamental moments of the historically first class society can be found.

are negated. Like all basic laws of dialectics, the law of the negation of negation is not an abstract presupposition, but a historically and concretely effective one. The following characteristics distinguish the capitalist mode of production from the others:

Firstly, the complete separation of subjective and objective conditions of production, i.e. the capitalist as owner of the means of production is not (like the slave owner, for example) at the same time the owner of labor power, and the worker as owner of labor power is not (like the small commodity producer, for example) at the same time the owner of means of production: "Capital owns nothing but the union of the masses of hands and instruments which it finds. It agglomerates them under its authority." [MGr 407] Secondly, because the owner of labor power is not at the same time the owner of the means of production, he must sell his labor power for his own reproduction and buy the means of his reproduction, the consumer goods. Therefore, commodity production only becomes a "general form of production" under the conditions of the capitalist mode of production [LW 1: 453].

Thirdly, because the direct producer is forced to sell his labor power, the buyer of the commodity labor power owns the product it produces. Because this is so, the capitalist does not have to appropriate either the labor-power itself (as, for example, the slave-owner appropriates the slave) or the surplus product produced by it (as, for example, the feudal lord appropriates the serfs and serfs) by means of extra-economic coercion, i.e. above all by the use of force.

Fourthly, while the exploiting classes in pre-capitalist class societies appropriated the surplus product primarily to satisfy personal needs oriented towards the consumption of use values, under capitalism "the production of surplus value or surplus power is ... is the absolute law of this mode of production" [MEW 23: 647], i.e. the goal of production is no longer a precisely measured one, but a measureless one (see [MEW 23: 167]).

Fifthly, this immoderation becomes clear in the dynamics of capitalism: "The bourgeoisie cannot exist without continually revolutionizing the instruments of production, i.e. the relations of production, i.e. all social relations. The unchanged maintenance of the old mode of production, on the other hand, was the first condition of existence of all earlier industrial classes." [MEW 4: 465]

Sixthly: The technological basis of this continuous revolutionization is that the manual labour that prevailed in the pre-capitalist modes of production is replaced by machine labour and industry becomes the most important economic sector. Closely connected with this is the fact that land is no longer the main means of production, but the instruments of production, above all the machine. [21]

Seventhly, all these factors result in a very strong polarization of society: "In the earlier epochs of history we find almost everywhere a complete division of society into different classes, a manifold gradation of social positions ... Our epoch, however, the epoch of the bourgeoisie, is characterized by the fact that it has simplified the class antagonisms. The whole of society is more and more divided into two great hostile camps, into two great classes directly opposed to each other: Bourgeoisie and proletariat." [MEW 4: 462 f.] This social separation is thus above all the result of the economic separation of subjective and objective conditions of production; wage laborers and bourgeois are therefore personifications of economic categories (see [MEW 23: 16]).

It can thus be seen that "all pre-capitalist class societies ... have some remarkable common features", which have just been mentioned in contrast to capitalism. The "differentiation of pre-capitalist class societies from capitalism is more profound and more striking than the differentiation of pre-capitalist formations from each other. [2: 163] This fact has led a whole number of scholars to summarize the pre-capitalist class societies into a single social formation; other scholars assume the existence of two pre-capitalist class societies and consider them to be a single social formation.

the ancient Near Eastern mode of production either as the final phase of the disintegrating primitive society or as the early phase of either the slavery order or the feudal mode of production (cf. the discussions in [14] [15] [16]). The editorial board was unable to endorse these views because they overlooked serious differences within economic development [7], which arise above all from the position of the direct producer in the reproduction process.

In large parts of Africa, America, Asia and southern Europe, the ancient oriental mode of production (also known as the Asian mode of production or as the economic basis of the "oriental despotism" or the "original", "early" or "primitive" class societies) emerges from primitive society. In it, the common property existing in the original community is preserved in appearance; the producers are generally still the owners of the land they cultivate. But the real owner is "the unifying unit that stands above all these small communities" and "appears as the superior owner or as the sole owner, the real communities therefore only as hereditary owners. Since the unity is the real owner and the real precondition of common property - it can itself appear as a particular above the many real particular communities, where the individual is then in fact without property, or the property ... appears to him mediated by the relinquishment of the total unity - which is realized in the despot as the father of the many commonwealths - to the individual through the mediation of the particular community. The surplus product ... thus belongs by itself to this supreme

unity ... which ultimately exists as a person ..." [MGr 376 f The "communal executive", originally acting in a social function, is transformed into an owner acting as a personification of economic categories, to whom a part of the surplus product is no longer transferred for his social function, but who appropriates a part of the surplus product in his economic function. Here it is characteristic that - and this shows the concrete dialectic of the individual, the particular and the general in the ancient oriental mode of production - it is not the individual producer but essentially the particular community that pays the taxes to the general owner.

[22] From here it also becomes clear that and why the transitions between pre-social and ancient oriental modes of production are fluid. If, historically speaking, both are strictly differentiated by the absence or domination of an exploiting class, then this difference does not arise at all for the immediate producer, i.e. in concrete action, since in both cases he performs surplus labor for the community, but it is only from the community - and apparently not from him - that the surplus product is taken away. Because both means and organization of production are initially essentially identical, there are repeated relapses in history from the ancient oriental to the pre-social mode of production, which are facilitated by the fact that the ancient oriental centers always had a pre-social environment. There was a constant interaction between these centers and their surroundings, also in the sense that pre-societal and ancient Near Eastern forms of ownership alternated with each other, i.e. the processes were still reversible.

In contrast to the ancient Near Eastern mode of production (also called slavery or slave-owning society), the main means of production, the land, was the individual property of free, equal members of a community of citizens able to defend themselves. As a result of the socio-economic differentiation taking place in this mode of production, mobile slavery emerged, i.e. slaves were bought and sold. This is an essential difference to the slavery existing in the ancient Oriental mode of production, which was generally immobile. Moreover, we must note that slaves have now become the main producers, which they were not in the ancient Oriental mode of production (see [MEW 20: 149]). Similarly, day laborers - as a preliminary form of the capitalist wage laborer - play a much greater role in production than before. This change in the position of direct producers in the reproduction process alone meant that commodity-money relations reached a qualitatively new level, since day laborers and sellers had to be paid by slaves.

The ancient mode of production undoubtedly presupposes the ancient oriental one. However, it did not develop in the ancient oriental centers, but - under the influence of gentile elements - in one of their peripheral areas. Without these gentile influences, it would probably not have been possible to overcome the ancient oriental mode of production. And even if, during the decline phase of the ancient mode of production, more ancient oriental elements were able to reassert themselves and more or less modify this mode of production (e.g. in the colonate), it must be said to have had a far-reaching effect, although geographically it was essentially limited to the coastal areas of the Mediterranean. Not only did it have an impact beyond its centers in western and parts of central Europe, in the Near East and in northern Africa, but without it feudalism of the western European type would be inconceivable.

However, in the opinion of the editorial board, the feudal mode of production should not be limited geographically to Western Europe, but rather encompassed the whole of Europe, large parts of Asia and northern Africa. The serf peasant as the main producer is the owner of the land. This distinguishes him fundamentally from the ancient slave and brings him close to the ancient oriental peasant. In contrast to the latter, however, he is not essentially subject to exploitation mediated by the community, but has to pay the feudal rent in its various forms directly to the landlord. Therefore, the feudal peasant can also intervene directly in the struggle for the surplus product - in contrast to the ancient oriental agrarian producer - and achieve success in this struggle, even if only temporarily and always limited.

[23] In general, four types of feudalism can be distinguished, which ultimately determined the development of feudalism in different parts of the world. In Northern Europe, feudalism emerged relatively autochthonously and, mediated via the marquisate, directly from primitive society. In other regions of the world, too, the development of the feudal mode of production took place under more or less strong gentile

influences, which, however, stimulated the transformation of an earlier class society - viewed in relative chronology - into a feudal one. In large parts of Asia, this was the ancient oriental mode of production; in the eastern and southern Mediterranean region, the feudal mode of production of Byzantine-Turkish-Arabic coinage emerged from the interaction of decaying primitive society, decaying antiquity and the continuing effects of the ancient oriental mode of production. Finally, in Western Europe, feudalism of the Western European type emerged from the interaction between the decaying ancient mode of production and the disintegrating primitive society.

Of these four types, the latter stands out, since it was only in its bosom that the conditions for the emergence of the capitalist mode of production matured. Although it was initially much more backward than the types that emerged from or under the influence of the ancient Oriental mode of production - which was particularly evident in the almost complete absence of commodity-money relations - only the Western European city that emerged on its soil succeeded in permanently eluding the rule of the country, a process that can be explained above all by the agrarian production conditions.

This peculiarity has prompted a number of scholars to regard the feudal mode of production as geographically limited to Western Europe [11]; others, however, even extend it to the sub-Saharan regions of Africa [18]. The editorial board has not been able to decide on a conceptual end to the discussion, which is still in flux for the scientists involved, who are also the authors of this handbook. Our knowledge of the economy of pre-capitalist class societies is still far too limited for a definitive decision to be made here (another view, obviously [18]). This becomes visible not least in the fact that the demarcations presented here are quite clear in relation to the capitalist mode of production, whereas the demarcations between the pre-capitalist modes of production had to be argued in a much more historically descriptive than theoretically generalized way.

This attitude of the editorial board means that the reader will find both articles that deal with feudalism on a world scale and those that, depending on the author's views, more or less narrow the view. Since the description of the ancient oriental mode of production

largely breaks off at the turn of the century, it is not always possible to guarantee a world-embracing depiction of the subsequent period. However, this is only the most striking example of the fact that the originally intended depiction of economic-historical development on a global scale could often only take place in a limited way: Because economic history research in the GDR in the 1950s and 1960s concentrated very strongly on Europe or even Germany or the GDR - which was partly a necessary starting point, partly a regrettable limitation - it has not yet been possible to overcome this backlog completely.

A further problem that has become apparent in connection with the classification of economic-historical development in the course of production methods is that of the transition from one mode of production to another. These problems are still [24] largely unexplored and are currently the subject of intense debate. [6] [9] [13] In the respective sections of the handbook on the individual modes of production, a special contribution on their early or late phases has been included wherever possible. For the transition from the ancient to the feudal mode of production the article "Colonate", for the transition from the feudal to the capitalist mode the article "Early capitalism". Due to its paramount importance, imperialism - the decay phase of capitalism - was not treated separately and summarized, but analyzed in all articles on this mode of production. For the socialist mode of production, on the other hand, the stages "restoration period", "socialist industrialization" and "intensification" were treated separately, stages which are also examined in the other contributions under specific aspects. To a certain extent, the Industrial Revolution and the Scientific and Technological Revolution, which are presented in special articles, can also be seen as stages of economic development. Unfortunately, it was not possible to include a contribution on the agricultural revolution in the Neolithic. The "hunting and gathering economy" that prevailed before this revolution, on the other hand, has been examined in a comprehensive article.

In this context, it should also be mentioned that although the prehistoric mode of production is presented here as a unit, there is certainly debate as to whether it is not more correct to speak of prehistoric modes of production [3] [4] [5] [10] [11], since both the productive forces were subject to decisive changes as well as the social conditions; the latter were characterized by Engels - following Ferguson and Morgan - as savagery, barbarism and civilization. However, because, despite all the differentiations [MEW 19: 402], the common ownership of land and the absence of classes remained a characteristic of primitive society throughout all stages of development, it was presented in a uniform way.

The group of developing countries required separate consideration. This group includes all former colonies, semi-colonies and dependent countries that have gained their political sovereignty through the collapse of the colonial system of imperialism, but are still fighting for their economic independence from imperialism. It therefore does not include any socialist countries, even if they describe themselves as "socialist developing countries" (for Romania, see [1: 101]); the statistics adopted by the UN do, however, include some socialist countries (Vietnam, Cuba, etc.) in accordance with the UN definition, but this hardly diminishes their informative value. The developing countries are thus an integral part of the capitalist world economy on the one hand, but on the other they have such a wealth of special features - starting with the fact that their economies contain more or less large remnants of pre-capitalist modes of production - that separate treatment is only justified. However, the economies of developing countries are not regarded as an expression of an independent mode of production, but represent a transitional form, whereby the paths, whether capitalist or socialist, are still reversible. However, the problem of the reversibility of socio-economic processes applies to all modes of production that precede the specific capitalist, industrial-capitalist mode of production. [25]

The factual classification within the modes of production

The overwhelming majority of the articles in the individual sections of the handbook deal with essential aspects of the economic processes that give rise to these modes of production.

overall process. A few deal with particular stages in the development of these modes of production; these were referred to in the previous subsection. All sections are preceded by a contribution providing a general characterization of the respective mode of production. The other contributions within a section are arranged alphabetically.

Because the production process is the fundamental element of the reproduction process, it is given particular attention. It is examined in articles that are broken down into the individual economic sectors (e.g. in capitalism: industry, agriculture, crafts, transportation and communications). For reasons of space, it was generally necessary to refrain from subdividing the industrial sector into individual branches of industry.

The results of the production process are distributed, exchanged and consumed. The results of distribution, the distribution process, are each presented in an article on property relations. In the circulation process, a distinction is made between the material and the monetary side, which are presented in separate articles on the development of trade on the one hand and the monetary and financial system on the other.

In some contributions, the entire reproduction process is viewed from a very specific angle, e.g. in the contributions "Economic Crises", "State Monopoly Capitalism", "Planning", "Economic Accounting" etc.. Other contributions deal with social phenomena that are a direct expression of the respective mode of production, e.g. class relations, or that have had a particularly strong influence on the shaping of the modes of production, e.g. the state as an economic factor, the military, urbanization, etc.

These principles of organization - 1. areas of production, 2. phases of the reproduction process, 3. particular aspects of the overall economic process, 4. factors of the social and societal superstructure - apply in principle to all modes of production. However, the different elements of the mode of production and the reproduction process have had different meanings historically. The majority of the elements that exist today have only crystallized into independent and clearly distinguishable ("quasi-isolated") areas in

the course of a longer development of the productive forces, in particular the social division of labour, extending over several modes of production. For example, it was only under feudalism that trade and transportation were separated from each other to such an extent that their treatment in separate articles seemed justified. The reader will of course first find a contribution to the history of industry in the section of the handbook dealing with the capitalist mode of production, because industry only emerged in the period of the Industrial Revolution of the 18th/19th century. As one of the most important non-agricultural branches of production in the pre-capitalist modes of production, mining occupied a special position in terms of the ownership structures, work organization and productive forces to be found in the mines. Accordingly, its development in the ancient oriental, ancient and feudal modes of production is presented separately. Under capitalism (and also under socialism), this branch of industry is increasingly integrated into the general development trends that can also be found in other branches and is consequently treated as a component of industry. At the same time, with the transition to mechanization and automation, the supply of energy to industry has become so important that it has become necessary to emphasize the energy industry over the other branches of industry and to deal with it in a separate article. The structure of the presentation of the individual modes of production was subject to similar, albeit less serious, changes with regard to the other areas to be presented. The development of the productive forces, for example, naturally had to be given more space in the sections dealing with the capitalist and socialist modes of production, in which the industrial and scientific-technical revolutions took place, than in those on the economic history of the pre-capitalist modes of production, which was characterized by a relatively slow development of the productive forces. Capitalism, as a recently past or still existing system of production, often required a more detailed examination of its relations of production and domination.

Some contributions therefore deal with questions that only became essential characteristics of capitalism under imperialism (e.g. capital export and import, monopolies, etc.). The need for a more detailed account naturally applies to an even greater extent to the contributions to socialism.

The role of consciously influencing the reproduction process, especially by the state, must not be underestimated for any of the modes of production that followed the primitive society. However, it has already become so complex under capitalism, especially under imperialism, that it is dealt with in several articles. Because in socialism the state directs and plans the reproduction process on behalf of the sole owner of the means of production, society, even greater space is given to the presentation of the associated economic problems.

The consideration of the particularities of a mode of production also applies, and certainly to a special degree, to the distinction between town and country in the pre-capitalist class societies. The productive forces, property relations, forms of organization of labour, forms of exchange and, last but not least, the institutions of superstructure and their structure in the city differ so greatly from the conditions in the countryside that their treatment in separate articles (in feudalism: property and class relations in the city) seems absolutely necessary. With the establishment of the rule of capital in the countryside as well, most of these essential differences disappear, so that in the sections on capitalism and socialism a separate article on "town" (or "country") could be dispensed with.

As already emphasized in the remarks on periodization, a world economy only emerges under capitalism. We therefore only find contributions on this topic from this mode of production onwards, as well as those that deal with particular aspects of the internationalization of economic life (capital export and import, currency or CMEA and economic integration). In the contributions on colonialism and the colonial past, the influence of more developed modes of production on less developed ones is presented. However, the geographical expansion of the area of existence of a mode of production is not a phenomenon limited to the term "colonialism", but also occurs in other forms, e.g. as the eastern expansion of Russian feudalism in Siberia or as Roman colonization. Ancient colonization is dealt with in a separate article.

Working out the essential moments of the concrete economic-historical process was the decisive aspect according to which the individual sections of the handbook were organized [27]. Unfortunately, a second aspect had to be taken into account - the state of scientific research: certain structures and processes that took place in the past can no longer or not yet be reconstructed today, in any case only in fragments, especially with regard to their quantitative organization. A description of the structure and dynamics of the reproduction process, the pace and fluctuations of economic growth, etc. would be of great interest for all modes of production, but according to our current state of knowledge, which is to a decisive extent de-termined by the scant material that has survived, this could only be done for the last two hundred years.

The "Handbook of Economic History" is therefore, as noted in the foreword, not only the result of past work, but also an indication of work to be done in the future. In this sense, the publication of the handbook is intended to provide a further impetus to considerably accelerate and intensify research into inter-national economic history in the GDR.

Literature:

1. Ceaușescu, N., in: Konferenz der kommunistischen und Arbeiterparteien Europas, Berlin 1976, p. 98 ff.;
 2. Engelberg, E., in: ZfG 1974, H. 2, p. 163 ff.;
 3. Feustel, R., in: EAZ 1968, H. 9, p. 120 ff.;
 4. Ders. in: EAZ 1973, H. 14, p. 55 ff.;
 5. Guhr, G., in: EAZ 1969, H. 10, p. 167 ff.;
 6. Herrmann, J., in: Evolution und Revolution in der Weltgeschichte. Bd. 1, Berlin 1976, p. 5 ff.;
 7. Kreißig, H., in: JWG 1975, T. 2, p. 101 ff.;
 8. Kuczynski, J.: Studien zu einer Geschichte der Gesellschaftswissenschaften. Vol. 8, Berlin 1977;
 9. Müller-Mertens, E., in: ZfG 1963, H. 2, p. 319 ff.;
 10. Sellnow, I.: Handbuch Wirtschaftsgeschichte - 19
- OCR text recognition Max Stimer Archive Leipzig - 27.09.2023
- Basic principles of a periodization of prehistory. Berlin 1961;- 11. Tökei, F.: Antike und Feudalismus. Budapest 1977;
- 12. Semjonow, Ju. I., in: EAZ 1967, H. 8, p. 15 ff.;
- 13. Töpfer, B., in: ZfG 1965, H. 5, p. 785 ff.;
- 14. Welskopf, E. Ch.: Die Produktionsverhältnisse im Alten Orient und in der griechisch-römischen Antike. Berlin 1957;
- 15. Ethnographisch-archäologische Zeitschrift, Jg. 1967 ff.;
- 16. Jahrbuch für Wirtschaftsgeschichte, Jg. 1967;
- 17. Probleme der Feudalismusforschung in der DDR, in: Jahrbuch für Geschichte des Feudalismus. Vol. 1, Berlin 1975, p. 11 ff.;
- 18. Weltgeschichte bis zur Herausbildung des Feudalismus. Berlin 1977.

Editorial board

1. Economic history in the system of sciences

[31]

1.1. Economic history as a scientific discipline

The definition of the object of research of the academic discipline of economic history given at the beginning of the foreword was: Economic history as an academic discipline researches the mode of production of human society; it researches the development and structure of the individual modes of production as a whole and in their elements as well as the interrelationships between the modes of production and their elements.

This definition is the result of manifold discussions within and outside the editorial team, of multi-layered debates with the various views on the classification of the sciences in general and on the subject of economic history in particular, but above all of an intensive preoccupation with the subject itself, economic history as a concrete historical process. To a certain extent, therefore, it anticipates the result of reading this handbook, albeit in a highly abstract form: The reader is now *familiar with the subject matter and has an inkling of what to expect*; but does this mean he knows what economic history is?

Knowing what economic history is requires the reader to engage with the subject itself, to study economic history as a concrete historical process. This becomes very clear when we attempt to systematically define the subject of economic history research in the following, and in doing so we must not only assume some knowledge of political economy and dialectical materialism, epistemology and the theory of science, but also and above all of economic history itself. Some readers may therefore prefer to study the "practice" of the economic historian first, the concrete-historical part of this handbook, and only then the metatheoretical considerations, the explanations of a theory *of* economic history. He is free to do so, especially because the form of presentation chosen for this article is deductive, i.e. it is based on very abstract definitions.

1.1.1. Science and objective reality

If we want to determine the "position of economic history in the system of sciences" (as formulated in [56]), we must at least have a preliminary concept of what science is. As is well known, Marx distinguished the scientific "from the artificial, religious, practical-spiritual appropriation of the world". [In so far as the economy is an integral part of the world appropriated by man in an ideal way, it is reflected not only scientifically, but also artistically, religiously and practically-spiritually.

Engels, for example, wrote that he had learned from Balzac's great novel "La comédie humaine" "even in the economic details ... learned more ... than from all the professional historians, economists and statisticians of the time put together". [MEW 37: 44] In a historiography on economic history it says: "Just think what a source of information for economic history the Old Testament is ... Yes, the Bible probably gives one of the first *economically determined* outlines of the history of mankind with the story of paradise and the expulsion of man, who must henceforth work by the sweat of his brow in order to live. As improbable as paradise must seem to us, the idea that the history of man on earth begins with the fact that he must work, and work hard at that" ([57: vol. 8, 56] - author's emphasis). If we go back even further into history, we must realize that the oldest written records handed down to us reflect facts from the economy and administration and that for this very reason not only the calendar but also "the earliest form of historiography, which as annalistics went beyond the simple fixation of a single event by a monument", came into being. [6: 133 f.]

No one can regard Balzac, the authors of the Old Testament or the annalists as economists. They appropriated economic facts artistically, religiously, practically and intellectually, but not scientifically.

Certainly the experiences that people make in the work process, the practical-spiritual appropriation of the world that takes place here, form the real basis of all science. The process and result of the generalization of these individual and empirical experiences into general social knowledge (see [MGr 594]) could be regarded as a practicable starting point for a definition of science (which is still lacking). Science, understood in this way, is therefore not a matter detached from the practice of human life but, on the contrary, one that is intimately connected with it. This is why Marx also notes on the concept of general labor that he introduced: "General labor is all scientific work, all discovery, all exploration." [MEW 25: 113 f.] (Because the "general" is a very abstract concept that is used very differently by different authors, a passage from "Capital" is quoted that makes Marx's usage clear: "The commodities represent their values now", i.e. in the general value form, "1. *simply*, because in *a single commodity* and 2. *uniformly*, because in *the same commodity*. Their value-form is simple and common, therefore *general*." (MEW 23: 79) The fact that the representation is simple and at the same time uniform is what distinguishes the results of the scientific appropriation of the world from those of the practical-spiritual, religious, artistic appropriation. Let us outline this difference using a few examples.

In the practical-spiritual appropriation of the world, we arrive at neither a simple nor a unified representation; we remain attached to the individual. In particular, historical considerations reveal the difference between scientific and practical-spiritual or, as we can also say here, pre-scientific (i.e. not unscientific) appropriation of the world in such a way that we have not yet gone beyond the mere description of facts. An instructive example of the limits of pre-scientific appropriation of the world in the field of economics is shown by Marx's critique of Aristotle's economic views (Ethica Nicomachea 1183 b): "'Exchange', he says, 'cannot be *without equality*, but equality *cannot be without commensurability*' ... Here, however, he stops and abandons further analysis of the value form. 'But it is *in truth impossible* ... that such diverse things are commensurable', i.e. *qualitatively equal*. This equation can only be something alien to the true nature of things, i.e. only a 'makeshift for practical needs'." [MEW 23: 73 f.] Because Aristotle did not advance to the general in the economic field, but understood it only as a practical expedient, we cannot regard him as *an economist*. [24]

In contrast, the scientific representation of the law of value is simple (*one* formula applies to all commodities) and uniform (one formula applies to *all* commodities). Under given conditions, we will therefore always be able to verify the law of value - it can always be rediscovered, but it will always be the same law of value that we discover. Progress in the scientific appropriation of the world is therefore shown by the fact that we arrive at representations of higher generality which contain the earlier representations as special cases. Marx showed this very vividly when he analyzed the development of the concept of labor from the practical ideas through the early bourgeois views of monetarism to classical bourgeois economics (see [MGr 24]).

The possibility of simple reproduction (understood here as repetition by others) as well as the extended reproduction of the results of the scientific appropriation of the world results from its predominantly (but by no means exclusively) cognitive nature. Because the artist appropriates the world predominantly (but by no means exclusively) in an emotive way, the work of art can be received by others in its essentially emotive content, but not reproduced, i.e. repeated (on the relationship between the emotive and the cognitive, see also [48: 30 ff.]). The repeatability of the results of the artistic - as well as the scientific - appropriation of the world always refers to the cognitive content of the work and the form "as the complete organization of its content" [10: 334], but not to the emotive content.

The artist therefore succeeds in simple representation, he never juggles with individual examples, but takes a single one - but the artist will never arrive at a unified (collective!) representation. The work of art is never general, so it never becomes a special case of the "general" work of art. Newtonian physics is contained in Einsteinian physics as a special case, and in this way the views of Ricardo, Hegel, Saint-Simon as the source and component of Marxism [LW 19: 3 ff.] have also been abolished - but the works of Homer, Michelangelo and Bach will never become "special cases" of the "more general" work of art in this way.

Because the artist, as a result of the emotive appropriation of the world, *sees* the essential in the individual [MEW 37: 44], he can sometimes be superior to the scientist, who advances to the essential by *generalizing* individual cases, in grasping objective reality (see [59: 379 ff.]). One and a half millennia before Galileo, Virgil wrote (Aeneid 3, 72): "We depart from the harbor, and countries and cities recede" - thus *saw* (and formulated) the Galilean relativity principle. And in the *scientific* analysis of money fetishism, Marx also drew on the results of the artistic appropriation by Shakespeare (Timon of Athens IV/3) and Goethe (Faust 1/4), which were far ahead of the science of their time (see [MEW EB 1: 563 ff.]). It is precisely in social-historical representations, especially [34] those of a cultural-historical nature, that we find confirmation of the fact that the authors sometimes move from mere description to a representation that grasps the essence of the matter not so much by way of scientific but rather by way of an artistic penetration of objective reality (see [55]). This does not result from the fact that - as bourgeois historiography, following Dilthey and Rickert, never tires of claiming - the historian only has to describe history in its uniqueness and singularity and thus never has to work scientifically (for criticism see [51]); rather, it results from the difference between the logical and historical representation of facts, which we will explain below with reference to the relationship between political economy and economic history.

The role of the emotive in the scientific appropriation of the world must by no means be underestimated, not only because the emotive can sometimes replace the missing, insufficiently developed or faulty cognitive moment [55], but because it is part of a complete appropriation of the world. "To write poetry means ... not to say feelings about things, but to say things in such a way that they can be felt." [73: 6] Has not this demand been met in the great works of science? Just read the "Communist Manifesto" or "On the Circular Motion of the Bodies of the World" by Copernicus. The physicist Heisenberg pointed out that "the importance of beauty for the discovery of truth ... has been recognized and emphasized at all times" [33: 296], and Engels, in a review of Marx's "Capital", referred "above all (! - the author) to the artistic, dialectical structure of the whole". [MEW 16: 208] Should not Planck's statement that "the experimental confirmations" for the general theory of relativity "are probably not yet sufficient, but the whole theory is so beautiful that it is certainly correct" [25: 6] encourage us in this direction?

However, here the boundaries to faith - of which the religious is only a special case - are fluid. Religious consciousness - like false, inverted consciousness in general [MEW 3: 26 f.] - only reaches a communal representation. This can be of the highest uniformity, as for example in high scholasticism - both with regard to the views it contains on economic questions (see [123: 40 ff.]) and with regard to its conception of history, to regard world history as a salvific event (see [51: vol. 1, 325 ff.]) - but never universally. The simplicity of science, which is to be understood in the existence of the *one* scientific truth - only fanatical airheads could dare to speak of a "German physics" - the simplicity is completely lacking in the religious (as classically beautifully depicted in Nathan's ring parable: Lessing, Nathan the Wise III/7).

Belief, whether religious or otherwise, is not knowledge, is not universal. The scientifically true is the general, also the generally recognized, about which there is nothing to discuss: "Isn't a statement actually the least debatable when it is true? Only the uncertainty

for the content of a judgment makes discussion necessary." [47: 38] [MEW 20: 106] What we believe, we do not yet know, and what we know, we no longer need to believe. Therefore we must also "realize that alongside knowledge there is also a belief - which sometimes dresses itself in religious forms, which sometimes is simply a continuation of knowledge into a dimension into which it can no longer reach. That is why faith is becoming ever more limited in its domain, for the domain of knowledge is becoming ever larger." [57: vol. 5, 71] The importance of faith not only in practical life [57: vol. 5, 69 ff.], but also in science, was expressed by the mathematician Gauss when he wrote: "I have had my results **[35]** for a long time, I only do not know how I will arrive at them" (cited in [82: 68]). But here again the boundaries to intuition, to artistic vision are fluid ...

The ways in which science moves "from the theoretically false but practically correct conceptions of everyday consciousness" to the "elaboration of the concrete-scientific understanding of this (initially practically imagined - the author) reality" [120: 259] are thus highly diverse and also historically changeable. "I believe because it is absurd", Tertullian is said to have written [20: 240]; "...that modern physical theory can only be true if it is so crazy that it appears senseless at first glance", on the other hand, is said to have been Bohr's view [82: 124].

Despite all the diversity and changeability of the ways in which the scientific world is appropriated, we can hold fast to this: From belief to knowledge, from seeing to understanding, from empirical values to theoretical generalizations - that is the path of science, and indeed its first part. Engels described it as follows: "The history of science is the history of the gradual elimination of this nonsense, or rather its replacement by new, but less and less absurd nonsense." [MEW 37: 492] Those who consider "replacement by new but less and less absurd nonsense" to be too casual a definition of the scientist's activity are referred to Lenin's demand that we should "not take our knowledge for something finished and unchangeable, but investigate how *knowledge* arises *from non-knowledge*, how incomplete, non-exact knowledge becomes more perfect and more exact" [LW 14: 96] - the two quotations are identical in content. However, this progression of science will not be considered in more detail here (for economic history in particular, see 1.5.1.).

This is the *first part of the* path of science, for "from living contemplation to abstract thinking *and from this to practice* - that is the dialectical path of the knowledge of *truth*, the knowledge of objective reality". [LW 38: 160] We must never forget this second part of the path of science, this "back to practice", because it is only on this path that knowledge is transformed into cognition, into practically applied knowledge. "The consciousness of man not only reflects the objective world, but also creates it" [LW 38: 203] - this statement by Lenin only applies to the *acting* consciousness. In this respect, only *the* reader of this handbook who goes beyond this handbook and practically applies the knowledge imparted here will advance to the *realization of* what economic history is: "*Practice is higher than (theoretical) knowledge*, for it has not only the dignity of the general, but also of immediate reality" ([LW 38: 204]; see also [32: vol. 2, 478]).

The work of the scientist - and also of the economic historian - does not find its completion in the merely correct grasp of what is; it must be supplemented by the implementation of knowledge in practical action.

Now that we have gained a perhaps practicable preliminary concept of science and have thus distinguished the scientific from the artistic, religious, practical-spiritual appropriation of the world, we want to take a closer look at the scientific discipline of economic history. In doing so, we assume that the organization of the *sciences* in their present form is primarily determined by the organization of *objective reality*: "The dialectic of *things* generates the dialectic of *ideas*, and not the other way around." [LW 38: 186] But the dialectic of *things* generates the dialectic of *ideas*. [LW 38: 186] But at the same time, this organization of the sciences reflects the increasing knowledge of human beings

The path from ancient philosophy as a single, unstructured science via the medieval system of faculties to today's interdisciplinary cooperation makes this clear.

1.1.2. Nature and society

At first it seems perfectly clear that economic history is not a natural science. However, it must be borne in mind that man emerged from nature and, as a biological being, is part of nature. The metabolic process between man and the surrounding nature is the labor process, and in it man "confronts the natural substance itself as a natural power" [MEW 23: 192]. This confrontation between natural power and natural substance has not been investigated by natural scientists; it was social scientists who worked out that this confrontation is "a condition of human existence independent of all forms of society", "an eternal necessity of nature in order to mediate the metabolism between man and nature, i.e. human life" [MEW 23: 57].

When considering the subject of economic history, the dialectical unity of nature and society becomes particularly clear, as the metabolism between man and the natural environment, the labor process, is one of its objects of investigation. The economic historian therefore by no means abstracts from the natural environment in his investigations, on the contrary:

"Whoever speaks of work in abstraction from nature never means *real* work; it cannot be realized without nature apart from the workers." [92: 69]

The importance of the natural environment for the development of human society in general, and modes of production in particular, must not be underestimated. Marx notes that "not the tropical climate with its overgrown vegetation, but the temperate zone ... is the motherland of capital". [MEW 23: 536] But once it has emerged, the capitalist mode of production also penetrates into areas where "by nature" less favorable conditions for its development were present. Does this mean that the influence of nature on society is complete? Not at all. The "ecological crisis" declared today by bourgeois ideologues as the "number one problem of mankind" is, on closer inspection, nothing other than the repercussions of nature being improperly altered by man, the capitalist mode of production. From the point of view of the consequences, "the more man changes his natural environment, the clearer it becomes ... how much he himself remains part of nature" [103: 7] [MEW 20: 452 f.]. We must also never forget that "the material capabilities of this society, its productive forces" - also the object of study of the economic historian - are "nothing other than the humanly formed possibilities of nature". [92: 78] [MEW 23: 57 f.]

Similarly, the nature we find today is no longer just the result of a natural-historical process, it is increasingly also the result of socio-historical processes. Can nature that has been changed in this way be studied in the same way as nature untouched by man? Is it enough for a limnologist today to study inland waters only from a scientific point of view? Can the "natural" soil conditions in today's Near East be understood without knowledge of the specifics of the ancient Near Eastern mode of production and its consequences? And vice versa: must not the possible effects on human nature also be taken into account when organizing work in the factory? Shouldn't the changes in the physiology of the human ear also be taken into account in such a highly intellectual matter as the history of music?

Nature and society are by no means things that can be neatly separated and placed in two drawers. The merely imaginary opposition of nature and society - in reality it has never existed - is a product of the pre-Marxist worldview [MEW 3: 39]; today it must be a matter of grasping the dialectical unity of nature and society - apart from the fact that their real unity as an essential side of the material unity of the world is a necessary precondition of a general methodology of science, as represented by dialectical materialism (see [23: 205 ff.]). The material unity of the world is also the basis for the unity of the sciences. But this unity of the world is contradictory and differentiated in itself. Because

This is because this fact has been recognized, today there is also a differentiated system of sciences, but a system whose elements - the individual sciences - interact with each other.

So if we define the mode of production of human society as the object of research in economic history and thus economic history as a social science discipline, this definition does not exclude nature as an object of investigation for the economic historian, but rather includes it to the extent that nature and its changes have an impact on this mode of production or its section under investigation. The reader of this handbook will find this confirmed again and again as he reads - be it in individual sections of the concrete-historical part or in the theoretical considerations of the first part. But there is certainly still much to be done here, because the individual sciences whose object of research is located at the intersection of nature and society, which cannot simply be regarded as natural or social sciences, such as geography and anthropology, psychology and ecology, etc., are becoming increasingly important today. The object of these sciences is socially produced nature itself, a nature that can no longer even be thought of, let alone studied, independently of human practical activity. But even when determining the object of research of a "purely" natural science discipline, society is not excluded as an object of investigation for the natural scientist; it is his object of investigation to the extent that society and its changes have an effect on this very object of research. Let us also not forget that Marx once summarized his ideas of communism as the "full development of human dominion over the forces of nature, both those of so-called nature and of his own nature" [MGr 387] [7: 5].

1.1.3. The historical moment in objective reality

Some social scientists, however, believe "that there are essential contradictions between nature and society, all of which ultimately have their justification in the role of history in society" [57: vol. 4, 141]. Now it is quite clear that there is a fundamental contradiction between nature and society, and this will also be discussed in the next section of our presentation, but it certainly does not result from the "role of history", because nature also has its history.

Engels emphasized as a significant advantage of "Capital" "that the author [38] does not, as is usually the case, regard the propositions of national economy as eternally valid truths, but as the results of certain historical developments. While even natural science is transforming itself more and more into a historical science ..., national economy has hitherto been as abstract and universally valid a science as mathematics." [MEW 16: 217] This is why Skvorcov-Stepanov, in his polemic against the metaphysical opposition of abstract-analytical economic theory and empirical-descriptive economic history, was able to write: "How many times has it been said that Marx applied the same method to the social sciences as Darwin did to biology. In his works, in his correspondence with Engels and others, Marx does not return to Darwin again and again by chance. Both Marx and Engels, although they also noticed certain weak and inadequate points in Darwin, were glad that Darwin applied the same method to biology that they had both begun to apply to the social sciences a decade and a half earlier." [97: 243 f.]

Modern natural science repeatedly provides evidence for the historicity of its objects of study. One of its representatives declared: "That man and only man is a historical being is a fundamental conviction of many humanities scholars. I would like to counter this with the following statement: Man is indeed a historical being, but he can be so because he emerges from nature, for nature itself is historical. What distinguishes man is not that he has history, but that he understands something of his history." [113: 9]

One of the aims of science is to recognize the objective laws at work. There is no science that does not have this goal. However, these laws are historically changeable - that the

The fact that the laws of the political economy of socialism only began to take effect in the 20th century, whereas the laws of physics in effect today began to take effect around 15 billion years ago [108: 57], is not a fundamental difference, but only a gradual one in terms of time.

If this is the case, then in our opinion it makes no sense to speak of historical sciences and to contrast them with "other" sciences, for example economic history as an independent science with "economic theory" as an independent science. Therefore, when we speak of economic history as a scientific discipline, we do so in the sense that it is a sub-science "which, together with political economy, forms economic science" [57: vol. 8, 71. In order to understand economic history as a scientific discipline, it is therefore necessary to take a closer look at the science of which it is a sub-discipline - economic science (see also 1.2.).

1.1.4. The social productive forces

Man is initially the result of a natural-historical evolutionary process, but in the further course of his development he increasingly adapts to *the* environment "no longer in passive biological evolution, but in active social development" [102: 791]. This process takes place in the sphere of production and reproduction of the material life of society. Its basis, the labor process, is "initially to be regarded independently of any particular social form" [MEW 23: 192]. This results from the fact that labor is "the first basic condition of all human life", "to such an extent that we must say in a certain sense: it has created man himself" [MEW 20: 444]. This is why all recent Marxist-Leninist textbooks on political economy [124] [127] [128] [129] take the labor process as their point of departure when explaining their subject matter, which in our opinion is identical with that of economic science, i.e. also with that of economic history. In the labor process, the worker interposes the means of labor between himself and the object of his labor - the surrounding nature as his object of labor. The use of the means of labor distinguishes man from his natural environment, it separates him from it as much as it connects him with it, and that is why we also call man "an animal that manufactures tools" (according to Franklin, quoted in [MEW 23: 194]). In the labor process, therefore, the fundamental contradiction between nature and society is reproduced, in which man's real behavior towards nature [MEW 3: 31, 43, 169] manifests itself. This behaviour of man towards nature, which produces a historically determined relationship between nature and society, is reified in the productive forces of human society. Within this system of social productive forces, man, who applies his practical experience and theoretical knowledge in the labor process, is the main productive force (see [LW 29: 352]).

"Nature does not build machines ... They are products of human industry; natural material, transformed into organs of human will over nature or its activity in nature. They are *organs of the human brain, created by the human hand; the power of knowledge visualized.*" [Therefore, what Engels says about the history of human society in general also applies to economic science, especially to the history of the productive forces: "*History does nothing*, it 'possesses *no* immense wealth', it 'fights *no* battles'! It is rather *man*, the real, living man, who does, possesses and fights all this; it is not 'history', for instance, which needs man as a means to work through *its* purposes - as if it were a separate person - but it is *nothing* but the activity of man pursuing his purposes." [MEW 2: 98]

Labor power, the means of labor and the object of labor are the fundamental moments of the labor process and as such, as productive forces of society, are an integral part of the research subject of economics. As simple moments of the labor process, however, they are not the subject of economics, but of other sciences. "Political economy", Lenin emphasizes, "is not at all concerned with 'production', but with the social relations of men in production, with the social structure of production" [LW 3: 51], and elsewhere: "Its object is by no means, as is often said

is 'the production of material values' (that is the object of technology), but its object is the social relations of people in production" [LW 2: 198]. The working person as a biological being is not to be researched by the economist, but by the human biologist. "The machine," notes Marx, "is no more an economic category than the ox that pulls the plow. The present *use* of machines belongs to the conditions of our present economic system, but the way in which the machines are utilized is something completely different from the machines themselves. Powder remains powder, whether it is used to injure a man or to heal the wounds of the injured man." [MEW 27: 456]

Even if the development of the productive forces, especially in the present, is hardly comprehensible without some basic knowledge of the applied natural and technical sciences, it must not be reduced to technical or natural processes, as is done in technocratic-technicist social theories of bourgeois provenance (e.g. in industrial society theory).

1.1.5. The mode of production of human society

The productive forces thus embody the behavior of working people towards nature. But "In production, people do not relate to nature alone. They only produce by working together in a certain way and exchanging their activities with one another. In order to produce, they enter into certain relations and relationships with one another, and it is only within these social relations and relationships that their relationship to nature, that production takes place. [MEW 6: 407] Following Pokrytan [84: 37 ff.], we distinguish the social relations that result from the labor process itself from those that result from the production process and constitute the relations of production in the narrower sense.

The former form a specific unity with the productive forces, which Marx called the "social mode of operation" [MEW 23: 496] and whose elements - according to Haustein [31: 14 ff.] - are the individual mode of operation on a social scale, the "character of the social body of labour", the social combination of production and the development of production relations between the producing units (specialization, concentration, cooperation and combination). The social mode of operation thus comprises the area of economic life that is consciously directed and organized by the immediate owner of the objective conditions of production - directly or by others on his behalf - and shaped by the producers directed by him.

Beyond these social relations resulting from the immediate labor process, in the process of producing and reproducing their material life, people enter into "certain, necessary relations independent of their will, relations of production that correspond to a certain stage of development of their material productive forces" [MEW 13: 8]. Because "all production ... appropriation of nature on the part of the individual within and by means of a certain social form" [MGr 9], appropriation and property as the result of appropriation are the social form of production and its results, and indeed so immediate a form that, according to Marx, it is even tautology "to say that property (appropriation) is a condition of production ... An appropriation that appropriates nothing is a *contradictio in subjecto*." [MGr 9] In this sense, the property relation constitutes the fundamental relation of production, the basic relation of production. This basic relation determines all other relations that people enter into with each other in the process of reproducing their material life, i.e. the relations of production, distribution, circulation and consumption. These relations in their entirety form the preferred subject of political economy (see therefore 1.2. for more details on this problem), but the subject of research should not be reduced to these.

The object of research of economic science, i.e. economic history *and* political economy, is rather the mode of production of human society, i.e. the dialectical unity of productive forces and relations of production. If we *understand* the relations of production as forms of movement of the productive forces (see e.g. [MEW 13: 8; 25: 274, 890 f.; 27: 452

f.)), then it is obvious [41] that the form of movement of the productive forces cannot be studied independently of the productive forces themselves. This is just as much a fact as the other forms of motion of matter [MEW 20: 354 f.] cannot be considered "in themselves", i.e. detached and independent of matter. If we further consider that the forms of motion of matter represent an essential basis for the classification of the sciences [MEW 20: 514 f.] [43: 486 ff], then the moving objects, the contents of motion, cannot be the object of research of one science and the forms of motion the object of research of another. Because the forms of movement of the productive forces are forms of economic movement (forms of development), the productive forces are by their nature economic objects and not scientific-technical objects. Because the relations of production constitute the form and the productive forces the content of the movement, the mode of production is at the same time a unity of content and form. The "struggle of content with form and vice versa" [LW 38: 214] is repeatedly referred to in this handbook.

However, two possible misunderstandings must be avoided. Firstly, it follows from the dialectic of form and content that a form is never *only* form, rather it is form in relation to a certain content and can itself be the content of a form; thus, for example, property relations in their real form are relations of production, i.e. forms of movement of the productive forces, but they are at the same time the essential content of legal relations (see [MEW 16: 27]). Secondly, content and form possess a relative independence from each other, so that a relatively isolated consideration of both can also make sense. Moreover, it can be historically necessary, namely when the "throwing off of form" precedes the "transformation of content" (see the sequence in [LW 38: 214]); if, for example, in the course of the socialist revolution, capitalist property relations (and thus the system of capitalist relations of production) are abolished and replaced by socialist property relations, while the transformation of the productive forces takes place by utilizing the already existing socialist relations of production [19: 123 ff, 172 ff], then this process, which in objective reality is initially essentially one-sided, is initially also investigated in this one-sidedness and must be (see also [120: 259]).

1.1.6. Economic history and political economy

Now that we have worked out the mode of production as the object of research in economics, let us take a look at the methodology of economics, as this determines the position of economic history as a scientific discipline (in the sense of a sub-science).

The objects of investigation of the economist are elements of objective reality. In this respect, his methodology is also included in the general methodology for researching this objective reality, in materialist dialectics as the general methodology of the sciences. There is no *scientific* insight into nature and society and their laws that is not based on the - conscious or unconscious - application of materialist dialectics (see [57: vol. 1, 28]).

With this statement on the general methodology of the sciences, the results of pre-Marxist and non-Marxist science are by no means thrown overboard as worthless - the Marxist scientists differ from the others in *this* respect only in their *conscious* use of materialist dialectics. It is in this sense that Lenin's following statement is to be understood, which does not at all refer to Marx, but to Heraclitus: "A very good exposition of the principles of dialectical materialism" [LW 38: 331]. The importance that the classics of Marxism-Leninism attached to the methodology of the sciences can also be seen from this judgment by Engels: "But Marx's whole conception is not a doctrine, but a method. It gives no ready-made dogmas, but indications for further investigation and the method *for* this investigation" ([MEW 39: 428]; just as clearly [LW 1: 189]).

The general methodology of the sciences, dialectical materialism, contains the special methodology of the social sciences, historical materialism (see [18:

160 ff.] [44: 3 ff.]). The need for a special methodology of social sciences arises from the fact that "social processes differ quite essentially from natural processes in one respect: they are realized in the actions of people who are guided by will and intentions, and this entails peculiarities in the operation of the general laws of development which must be studied separately" [18: 164].

The object of economic science ultimately gives rise to its individual scientific methodology, which is embedded in the general of dialectical and the particular of historical materialism and is called, with Marx, "the method of political economy" [MGr 21]. From Lenin's statement: "Even if Marx did not leave behind a '*logic*' (meaning a work in the style of Hegel's 'Science of Logic' - author's note) ... he did leave behind the *logic* of 'Capital' ... In 'Capital', logic, dialectics and the theory of knowledge ... of materialism are applied to *a science*" [LW 38: 316], it is already clear how closely the method of political economy is linked to historical-materialist dialectics. Its exposition can basically be nothing other than the materialist, dialectical, historical and political-economic analysis of Marx's life's work and therefore, of course, cannot take place here. We therefore refer to a number of more recent fundamental analyses from a Marxist-Leninist perspective. [39] [91] [110] [114] [115] [117] [120] We will only look at one aspect in more detail here because, in our opinion, the classification of economic history as a scientific discipline can be derived from this - the relationship between the logical and the historical.

The discussion about the relationship between political economy and economic history actually began long before the latter appeared as an institutionalized academic discipline, i.e. represented by a chair. The starting point of the discussion in terms of the history of ideas was the so-called first methodological dispute in economics about the relationship between historical-empirical and abstract-theoretical analysis [71: 109 ff], as a result of which "pure economic theory" in the form of marginal utility theory separated from economic history, the latter receiving its first and in many respects meritorious school in the form of the (younger) historical school of economics under the leadership of Schmoller [57: vol. 8, 141 ff]. Even if the ideological component of this methodological dispute must not be overlooked - it was ultimately about the more effective method for combating Marxism [54: 66 f.] - the development of the discussions about the relationship between economic history and political economy since then shows that it has far-reaching significance beyond this immediate objective, and not only for bourgeois but also for Marxist scholars. Marxists contrast economic history and political economy as (independent) historical or theo- retical sciences [88], regard them as (dependent) empirical [43] (or practical) or theoretical branches of economic science [57: vol. 8, 27], classify them as descriptive or theoretical sciences [65: 116], and so on. However, while all Marxist scholars agree that economic history and political economy always stand (or at least should stand) in a mutually fertilizing relationship, the views of bourgeois economists are also divergent in this respect: almost without exception, both are regarded as independent sciences and, depending on the intentions of the authors, are presented as mutually fertilizing [4] [5] [85] [116] or as indifferently juxtaposed [3] [15]. Some scholars even claim the existence of an atheoretical economic history and an ahistorical political economy [89] or, going even further, give them two different objects of research (see [97: 243]). Some are pleased that economic history is taught at the history faculty [12], others deplore this fact [118], and the third consider the problem of where economic history should be taught to be practically unsolvable [70: 9 ff.]. Even if we disregard such rather obscure definitions as Kellenbenz's purely idealistic one: economic history should be pursued as intellectual history [45: 125], our list clearly shows the different - opposing and complementary - views on the relationship between economic history and political economy (see also the anthologies [121] [125] [132]). For the classics of

Marxism-Leninism, "political economy was ... essentially a *historical science*" [MEW 20: 136] and, at least in this sense, not distinct from economic history. For them, however, political economy was also an eminently practical-empirical science. Just read the following passage from Marx and Engels' correspondence: "By accident I found in a small second-hand bookshop the Report and Evidence on Irish tenant right 1867 (House of Lords)

... This was a real find. While the gentlemen economists treat it as a pure dogmatic dispute whether the land rent is payment for natural differences in the soil or mere interest on the capital invested in the soil, we have here a practical struggle to the death between farmer and landlord as to *how far* the rent *should include, besides* the payment for differences in the soil, the interest on the capital invested in the soil not by the landlord but by the tenant. Only by replacing the conflicting dogmas with the conflicting facts and the real contrasts that form their hidden background can political economy be transformed into a positive science." [MEW 32: 180 f.] Lenin remarks: "*Facts* are the basis of political economy, not dogmas." [1: 91] In precisely this sense, Marx and Engels state: "Where speculation ends, with real life, real, positive science begins, the description of practical activity, of the practical process of human development. The phrases about consciousness cease, real knowledge must take their place

... The most that can take their place is a summary of the most general results that can be abstracted from the observation of the historical development of mankind. These abstractions have absolutely no value in themselves, separated from real history. They can only serve to facilitate the ordering of the historical material, to indicate the sequence of its individual layers. But in no way do they provide ... a recipe or scheme according to which the historical epochs can be trimmed. On the contrary, the difficulty only begins where one begins to consider and organize the material, be it of a past epoch or the present, in the actual representation." [MEW 3: 27] Marx and Engels (and also Lenin) would therefore never have thought of a juxtaposition of economic history and political economy in one of the variants mentioned above. Now the objection could be raised against this recourse to the classics that at their time economic history as a scientific *institution* did not even exist or was of very subordinate importance, and that for them political economy and economic science were the same thing. The latter clearly emerges from the summarizing statement: "... political economy in this extension, however, is yet to be created. What we possess of economic science up to now is limited almost exclusively to the genesis and development of the capitalist mode of production ..." [MEW 20: 139] In fact, there is no economic fact that is not (or at least should not be) investigated by political economy. Marx was by no means an agrarian economist when analyzing land rents, a commercial economist when analyzing merchant capital, a financial economist when analyzing interest rates and "also" a political economist. The fact that not every economist is a genius and therefore only studies one or two specialized areas of his science is irrelevant.

However, there is also no economic fact that is not (or at least should not be) investigated by economic history. Therefore, economic history and political economy are not special fields of economic science - such as financial economics and financial history, trade economics and trade history, etc. - but both examine the economic *totality* (in the sense of [MGr 7 f.]). They both examine it according to a uniform methodology of research. [57: vol. 8, 25 f.] [62: 93] This cannot be otherwise, because the methodology of research is determined by the object of research. An essential element of this methodology, however, is the logical and historical investigation (according to Engels [MEW 13: 474 ff.] ', while Marx generally contrasts the historical with the theoretical or analytical investigation; see [91: 465 f.]), which we will consider in more detail below.

In the logical analysis, we start from the highest level of development of the object under investigation: "The highest level of development of the object contains in a certain way, so to speak in

in a suspended form, the preceding stages ... But this means that the reproduction of the *essence* of any phenomenon in thought is at the same time the *revelation of its history*, the theory of any object must at the same time be its history." [52: 238 f.] But this second statement, like the first in the quotation, is not to be seen as absolute, as the master of logical analysis, Marx, makes clear to us with a concrete example: "Bourgeois society is the most developed and diverse historical organization of production. The categories which express its relations, the understanding of its organization, therefore at the same time give us an insight into the organization and the relations of production of all the forms of society which have passed away, with the ruins and elements of which it has been built up, of which remnants, some still overcome, drag on within it, of which mere allusions have developed into developed meanings, etc The bourgeois economy thus provides the key to the ancient etc Furthermore, since bourgeois society itself is only If a new form of development is a contrasting one, the conditions of earlier forms will often only be found in it in a very disturbed form, or even travestied. For example, communal property. If, therefore, it is true that the categories of bourgeois economy possess a truth for all other forms of society, this is to be taken only *cum grano salis*. They may contain the same in a developed, distorted, caricatured, etc. form, always with an essential difference." [MGr 25 f.] It would therefore be fundamentally unscientific for an economist to study the ancient mode of production *per se* [45], i.e. without any real knowledge of the capitalist mode of production, for example.

In historical analysis we essentially take the opposite path: "What is *first* in *science* must show itself to be *first in history*" [32: vol. 1, 74], says Hegel, a remark that Lenin adds "Sounds extremely materialistic" [LW 38: 96] and that Engels [MEW 13: 475] reads in a very similar way. In his lecture "On the State", Lenin elaborates this idea as follows: "The surest thing in social science, the most necessary thing in order to approach this question from a scientific point of view, consists in is not to disregard the fundamental historical context, to look at every question from the point of view of how a certain phenomenon has arisen in history, what main stages this phenomenon has passed through in its development, and to examine from the point of view of this development what has now become of the thing in question." [It would therefore be fundamentally unscientific for an economist to study the capitalist mode of production *per se*, i.e. without any real knowledge of its genesis, which in part goes back to the beginnings of all economic activity. In *Capital*, for example, Marx had to "accomplish something that bourgeois economics had not even attempted, namely to prove the genesis of this form of money, i.e. to trace the development of the expression of value contained in the value relation of commodities from its simplest, most inconspicuous form to the dazzling form of money" [MEW 23: 62].

If the economist wants to advance from the mere description of objects to scientific research into them, he must therefore keep an eye on the least and the most highly developed form of the object under investigation. Scientific research must therefore proceed logically and historically at the same time; the unity of the logical and the historical is therefore a necessary element of every research process. But this is a dialectical unity, a unity of opposites, i.e. contradiction. The scientist himself analyzes the object of investigation as a dialectical one, sees in it the preliminary stage of completion as well as the completion of the preliminary stage, the past as well as the present, as well as the future at the same time. When we say that the dialectical contradiction is "the root of all movement and vitality" [32: vol. 2, 58] [LW 38: 129], this also applies to the research process. This movement and vitality, or, as Lenin puts it, "living life" [LW 38: 339], is what every scientist must investigate and what is also inherent in every real research process - not least in the contradiction between the logical and the historical.

This living contradiction is not present in the representation, because "the critique of economics, even after the method" of research has been won, "can still be applied in two ways: historically or logically" [MEW 13: 474]. Historical *or* logical - precisely this dialectical moment

of the research process, the contradiction between logical and historical cognition that gives it life, *must* be eliminated. No scientist can begin his account with the historically first *and* the logically first (usually historically last) moment at the same time; he has to decide definitively between historical and logical account.

Marx comments on his form of representation: "In all forms of society, it is a certain production that assigns rank and influence to all others, and whose relations therefore also assign rank and influence to all others

... It would therefore be untrue and wrong to allow the economic categories to follow one another in the order in which they were historically the determining ones. Rather, their order is determined by the relationship they have to one another in modern bourgeois society, which is exactly the reverse [46] of what appears to be their natural order or corresponds to the sequence of historical development." [MGr 27 f.] Here we are talking about a political-economic representation, and in it, as Marx exaggerates, the (logical) order is precisely the reverse of that which corresponds to the order of historical development.

Let us now compare the economic-historical account in Lenin's work "The Development of Capitalism in Russia" with Marx's political-economic account in "Capital".

"original" accumulation, the expropriation of the peasant from the land, precedes large-scale industry, and therefore the emergence of the latter cannot be grasped without the prior presentation of the former - ergo Lenin presents it in this order; logically, large-scale industry can be grasped without "original" accumulation, but the logic of the latter (its historical results) cannot be grasped without the prior presentation of the former - ergo Marx presents it in this order. Thus, to use Marx's formulation, the economic-historical representation is also opposed in *its* order to the political-economic representation.

In the literature, the relationship between the logical and historical method of representation is generally regarded as settled with reference to Engels' statement: "The logical method of treatment ... is in fact nothing other than the historical, only stripped of its historical form and disturbing contingencies" [MEW 13: 475], and thus overlooks the decisive fact that Engels is not concerned here with economic development, but with what he calls the "literary-historical development of political economy" and its representation [117: 107]. This distinction is essential, however, if we consider, for example, that firstly the basic rent was present in the ancient mode of production, secondly it is not reflected in ancient literature [MGr 387], thirdly it cannot be understood without the concept of capital [MGr 26] and therefore, fourthly, in Marx's "Capital" it is set against the historical order and placed in accordance with the logical one.

Of course, the historical form of representation has a logical *content*, just as the logical form of representation also has a historical *content* [83: 312 ff.], because the representation reflects the results of a research process in which the logical and the historical were examined in their unity - Marx did not write an ahistorical textbook on political economy and Lenin did not write an atheoretical textbook on the development of capitalism in Russia. On the contrary: Marx expressly noted that "our method" - that is, the logical method of presentation as well as the logical-historical method of research - "on the other hand ... shows the points" where "historical consideration must enter" [MGr 364]; Lenin could have written similarly, except that the terms "logical" and "historical" would have been interchanged. - This is why we also find passages in both works whose presentation is not contradictory but parallel, e.g. the historical sequence of cooperation - manufacture - large-scale industry or the logical sequence of manufacture - domestic work.

However, if two scientists research one and the same object using one and the same method, they are also representatives of one and the same science - the particular form of presentation only indicates the particular objective of their work. But objectives, which always result from the socially and individually determined nature of the cognitive process [29], do not constitute independent sciences (but so [42]); an absolutely necessary (if not sufficient) prerequisite for the constitution of an independent science is its object of research, which exists independently in objective reality.

[47] However, the objectives give rise to the following fact about bourgeois economics: "In the long run, in the very long run, the work of those who concentrated on discovering and establishing 'facts' seems to have fared well in comparison with the 'theorists', even if in the short run the 'theorists' usually won the day. Today we hear little of Overstone, but Tooke's empirical work is still used. Porter's 'Progress of Nation' is still in use, but how many still read his contemporary James Mill today? Jevon's prices are still used, but how many economists today really know his theoretical work first hand? Our recent experience in this regard is similar." [37: 206 f.] It is no wonder that the classics of bourgeois political economy are missing from this list, i.e. those who built their theories on facts and *therefore* tower high above all those mentioned by Hughes - not to mention Marx, Engels and Lenin, who are "naturally" forgotten in this list. In fact: "Political economy without economic history ... is pure nonsense." [57: vol. 8, 38] As such, however, it disseminates misleading information for the dominated classes and strata, while its task of conveying leadership information to the ruling class is today increasingly being taken over by the so-called theory of economic policy, which has thus become a relatively unsuitable substitute for an absolutely unsuitable "pure theory". However, the more bourgeois political economy is geared towards the regulation of being and not the manipulation of consciousness, i.e. the more "fact-oriented" it is, the less theoretical interest it generally has, the more it sinks to mere craftsmanship, examining the what and how, but no longer the why. Craftsmanship is not science - Aristotle (Metaphysics 981 a) already distinguished between craftsmen and scientists in such a way that the former only know the what, while the latter also know the why.

This should also be borne in mind when we say: "Economic history without political economy is an artisanal compilation of facts. And yet, of course, the artisanal compilation of facts is far superior to abstract spinning, since it is far closer to reality." [57: Vol. 8, 38] Even if bourgeois economics is an example par excellence of Lenin's statement that "*not a single one* of these professors, who can produce the most valuable work in specialized fields of chemistry, history, physics, ... *believe a single word* as soon as he comes to speak of philosophy" [LW 14: 347], it must not be overlooked: Even those who imagine that they are conducting "value-free" research are "no less in the thrall of philosophy, but usually, unfortunately, of the worst" [MEW 20: 480] - after all, the very selection of facts that they consider worth mentioning contains a value judgment [60: 66 ff]. However, it should be noted that bourgeois economic historians are mostly characterized by what Lenin calls the spontaneous materialist views of natural scientists [LW 14: 36 f., 111, 146, 277, 351], whereas bourgeois political economists much more frequently "sacrifice reality on the altar of an elegant, self-contained model" [90: 340].

For this reason, two fundamentally different lines of development can be distinguished in the current process of rapprochement between economic history and political economy within the framework of bourgeois economics. One sees economic history as a field of verification of political-economic - or more precisely: growth-theoretical - hypotheses and thus enters from the outset into the "bondage of philosophy", i.e. bourgeois economic theory. The "reunification of economic history and economic theory" [48] [25] that is sought in this way has at best resulted in a de-historicized economic history ("quasi-history" [87]) of the ahistorical

"pure economic theory" [105] [35]. In terms of *methodology*, Marxist economic science can learn an extraordinary amount from "economic history" [26], "histoire quantitative" [72] and "histoire sérielle" [14], without having to adopt their sometimes quite ahistorical premises [86]. The other is based on the generalization of economic-historical factual material and places it in the context of long periods of time ("La longue durée" [9: 50 ff.] [63] [68]). In doing so, it undoubtedly makes a contribution to solving such largely unsolved problems, even in Marxist-Leninist economics, such as the development of a new structure from a previous one (structural developments) and the

structure of economic development processes themselves (development structures). The unity of economic history and political economy that emerges quite clearly here, which is also an indispensable prerequisite for the theoretical generalization of an overall economic-historical process [741 [75: 13 ff.], shows once again that the question "Histoire économique ou économie retrospective?" [40] is only oriented towards an illusory problem.

As a general experience, it may be said: Whoever writes a logical account without historical content has lost the secure ground of facts under his feet, has abandoned the basis of his science, and therefore the historical has primacy over the logical. [57: Vol. 8, 24]

[104] Whoever writes a historical account without logical content remains - to vary a word from Kant [41: 95] - blind to the facts, must ultimately fail, and therefore logic is the instrument for "mastering" history. [57: Vol. 8, 68] We can also formulate it in this way: 'There is no economist who works only as a political economist or only as an economic historian, but there are, of course, books on political economy and on economic history.' [57: Vol. 8, 39]

1.1.7. The special fields of economic history

The common object of research of economic history and political economy means that their areas of specialization are theoretically identical, even if divergences are occasionally apparent in practice, which are due to considerations of scientific policy and trends inherent in science. But first and foremost, the structure of both disciplines reflects the objective reality that they examine together and which is structured within itself. The economist's central object of investigation found in objective reality is the economy, the economy as the real expression of the mode of production of human society (see [93: 1136]). By appropriating this object of investigation scientifically - more precisely: in terms of economics - we move "from a chaotic conception of a whole" (the economy) to a "concreteness of thought", to the reflection of "a rich totality of many determinations and relations" [MGr 21 f.], which is summarized in the concrete concept of the mode of production. Beyond this central object of investigation (the economy), all the phenomena in nature and society are the economist's object of investigation insofar as they affect the mode of production as his object of research.

It is therefore obvious that with the change in the modes of production not only the subject matter of the economist's research is subject to corresponding changes, but also the structure of economic science and its various areas of specialization. This fact is initially reflected in Marxist-Leninist economics in such a way that today we present a political economy of capitalism and a political economy of socialism; the independent existence of a political economy of the developing countries is disputed [46] [50] [107] and a political economy of the individual pre-capitalist modes of production (apart from the basic beginnings with Marx and Engels) has not yet been worked out at all. However, they are all components of a *unified* political economy that logically represents the structure and development of the modes of production. Because today we are much further along in the historical representation of the pre-capitalist modes of production than in the logical one, we can initially classify economic history as a scientific discipline according to the modes of production it examines: Primitive society - Ancient Orient - Antiquity - Feudalism - Capitalism - (developing countries) - Socialism and Communism. However, it should be emphasized once again that economic history as a scientific discipline must historically depict all economic events up to the present day and not break off at an arbitrarily chosen point in time (1971, 1945, 1917, etc.).

Although constantly subject to historical changes, the object of study "economy" found in objective reality contains elements that are intrinsic to it, regardless of all historical changes. They constitute the economy as a system. Because the division of a system into its elements is most pronounced in its most highly developed form, in our

In the following, we will present the system of special fields of economic science (and, included therein, of economic history) primarily as a reflection of the economic system of socialism (see also [28] [109] [131]). The special features of the economic-historical presentation of the individual production methods can be seen in part from the factual structure of this handbook.

The smallest unit within an economic system or its lowest level is usually the company. The logical representation of the economy of a business as a whole is the responsibility of business economics, whereas the historical representation is the responsibility of business history. The latter should not be confused with business history (see 1.4.2. for its subject matter). In bourgeois company history ("business history"), the achievements of entrepreneurs and managers are placed in the foreground and such essential aspects of business history as work organization, cost calculation, work performance, etc. are almost not presented at all. The business history of capitalist companies and even more so that of pre-capitalist companies (such as the Greek ergasteries) is hardly developed and the latter is also very difficult to develop due to the largely non-existent material base.

However, the enterprise is not only an element of an economic system, but at the same time part of a living whole, the mode of production, so that in the logical and historical description of its economy, essential problems of this mode of production become visible at the same time. It is probably no coincidence that Marx explains the fundamental distinction between the formal and specific capitalist mode of production in detail in a work that deals with the results of the *immediate* production process. [2] This should also be emphasized in relation to all those views that - implicitly or explicitly - express the view that the enterprise is far too specific a thing to be the object of investigation of a "general economic science" (of political ecology). However, there are different ways in which one can progress from the analysis of business economics to the analysis of higher units.

A *first* approach is based on the use value produced or service provided in the respective establishment. By grouping together enterprises in which the same use values are produced or the same services are provided, we arrive at economic groups, branches and sectors. For example, according to the operating system valid in the GDR since 1967, the following economic sectors can be distinguished: Industry; Construction; Agriculture and forestry; Transport and communications; Trade; Other branches of the material sphere; Service-providing economy; Cultural and social institutions; State administration and social organizations. [119: 41 f.] A glance at the table of contents of the "Special fields" section of this handbook shows that the two classifications partly coincide, but also partly diverge. It is precisely in the deviations that the historicity of each classification becomes particularly clear. Because the communications industry has only recently attained direct economic significance, a narrowing down to the specialized field of transport history seems justified, but because of the precisely opposite change in significance, a separate consideration of agricultural and forestry history seems necessary. For similar reasons, the history of the coal and steel industry - today a part of industry - is presented separately as a special field of economic history and that of the building industry is not presented at all. While the analysis of cultural and social organizations under the aspect of economic history will probably never be the responsibility of a distinct special field, it can certainly be expected that in the future there will be colleagues who will present the special field of "history of services".

A *second* way starts from the geographical location of the company. By grouping together companies in a geographical area, we arrive at the world economy via regions (divided into urban and rural areas), territories, states, etc. (which today can be divided into a socialist and a capitalist world economy, although they are not unrelated). Special areas to be emphasized are the history of locations and their distribution (geographic economic history), the history of trade (included in the special field of trade history) and the history of the world economy (included in the special field of trade history).

The history of exchange relations between the production units and finally the history of the 'world economy'.

A *third* approach is based on the four phases of the reproduction process, i.e. assumes that the use values produced or services rendered in an enterprise must be distributed, exchanged and consumed. Because the relations of distribution are essentially identical with the relations of production, and represent a reverse side of them [MEW 25: 885], there is no special field of the history of distribution. The history of circulation has been written primarily under two aspects, as financial history and as trade history, the latter still subdivided into the history of foreign and domestic trade, for earlier epochs of long-distance and local trade. A history of consumption as a special field of economic history (as a counterpart to the political-economic special field of consumption and living standards) has not yet been developed.

A *fourth* approach is based on the elements of the production process that interact within a production unit. They are logically represented by the labor economy, the basic fund economy and the material economy. Historically, they are usually presented in their entirety as the history of the productive forces [51]. The history of the forms of movement of the productive forces, i.e. the history of the relations of production, does not exist as an actual special field, quite simply because no economic historian - apart from a few exceptions not of interest here - has thought of presenting his object of study independently of the relations of production; but because, conversely, the presentation of the productive forces has often been neglected in the past, it is now at the forefront of the work of some economic historians.

A *fifth* approach assumes that the economy, the economic reality, is also the result of the *conscious* organization of the reproduction process. This is why the doctrine of economic management has emerged in recent years and decades. At the lower level, it aims at what we can call the organization of the mode of operation. It follows from the above, however, that it is also directed towards the organization of the individual phases of the reproduction process, the individual economic groups, branches and sectors, the individual geographical areas - whereby territorial and national economic planning and the conscious organization of economic integration within the CMEA play a particularly important role in socialism - and the individual elements of the reproduction process, whereby the scientific organization of work is particularly important at present. Just as there is a logical representation of economic management (the doctrine of economic management [126: 377]), which is sometimes also classified as "applied economic science" [42], the historical representation of this problem, e.g. the history of economic policy, is developing as a special discipline.

Furthermore, the development of economic science itself can be presented historically, whereby the history of political economy today is considerably more developed than that of economic historiography (see 1.5.1. and [21]), the history of the special fields of political economy has already been partly worked on, while that of its economic-historical counterparts is largely unworked. Finally, the source studies of economic historians (see 1.5.2.) and the study of their working methods (see 1.5.3.) should be mentioned here, which can of course also be presented for the work of political economists.

Like every science, economic history as a scientific discipline is in a state of constant development and change. Nowhere is this more evident than in the consideration of its internal systematics, the system of special fields, the presentation of which will never be definitive and always unsatisfactory. Just think of the large number of very special problems, which are certainly amenable to separate consideration, that arise solely from the combination of different special fields, such as an investigation of the influence of territorial planning on the distribution of locations of companies that trade in basic resources for agricultural enterprises. Certainly no one will want to claim that this is a special field of economic history, but at the same time we must admit that a precise definition of the term

"specialty" is still outstanding. If we think, for example, of the study of capitalist economic crises by Varga and his students, or of the works published by the members of the International Committee for the History of Prices and Wages, or of the many studies on the history of the monopolization process, then it would not seem wrong, at least in principle, to say that special problems of research that had at times come to the fore, also under the influence of outstanding research personalities, had developed into temporary special fields.

[52] Historically, it has also been shown that shifts of emphasis occur in research within a specialized field. For example, for many years bourgeois agrarian historiography dealt almost exclusively with the agrarian constitution, i.e. ultimately with the legal expression of production conditions in agriculture, whereas today the development of agrarian productive forces is at the forefront of agrarian historical research.

The special fields of economic history - as the different points of view according to which they have been emphasized and worked out from economic history as a whole have made clear - are not absolutely separated from each other, overlap and influence each other, are in mutual connections that result from the objectively real ones. There is no pigeonhole system within economic history, because "every concept is in a certain *relationship*, in a certain context with *all the others*" [LW 38: 187] - even in economic history.

While it is therefore necessary, on the one hand, to penetrate ever more deeply into the economic sectors or the individual stages of the reproduction process, on the other hand, the demand for knowledge of the laws as an overall process, or even those of the transition from one mode of production to another, results in the need for an overall view. Thus both processes - specialization or differentiation and integration - form two inextricably linked trends in the development of economic history as a scientific discipline: "*The movement of scientific knowledge - that is the essential thing.*" [LW 38: 79] [32: vol. 1, 6] Because it is "*the totality of all sides of appearance, of reality and their (inter)relations*", "of which truth is composed" [LW 38: 186], differentiation and integration of special fields must never be juxtaposed and considered independently of each other. In the present day, the tendency towards integration can also be seen - but by no means only - in the increasing spread of cooperation in the development of economic-historical studies and publications. This handbook has also been produced through the collaboration of scholars researching specialized areas of economic history.

Kedrow has described the relationship between differentiation and integration in the field of science in the present as follows: "The further *differentiation of the sciences* is now not only a prerequisite, but also a component of *integration*. From this point of view, the progress of science as a whole and the progress of natural science in particular can be understood in such a way that the emergence of ever new branches of science and individual disciplines contributes in and of itself to the synthetic unification of all sciences, both those that existed previously and those that are newly emerging, into a unified system of human knowledge. In short, the progress of science in the present appears in this respect as the realization of the inner unity of opposing tendencies - the differentiation and integration of scientific knowledge, each of these tendencies proving to be only one of the sides of the unified process of development of scientific knowledge." [43: 14] [53]

1.1.8. The neighboring sciences of economic history

The fact that scientific truth is always the product of knowledge about the totality of *all* sides of a phenomenon means that economic history can never be pursued in isolation, but only in constant interaction with other sciences. Of the sciences as a whole, those whose object of research is such that the scientist concerned with it examines objects are of particular interest to the economic historian,

which are also studied by the economic historian. Thus the object of research of the jurist is different from that of the economist, but the relationships that individuals and groups of individuals (classes, etc.) enter into with one another in the reproduction process are also of a legal nature, and are thus the object of investigation of both the jurist and the economist, one time under a legal aspect, the other time under an economic aspect. Because they are two sides of one and the same thing, it can never be researched unilaterally as a relational, *real* thing - both the cause and the effect. The examples could be multiplied at will (see detailed section 1.4.).

The different significance of the other sciences for the work of the economic historian results from the varying degrees of interaction between their different areas in objective reality. It results equally from the specific objects of investigation of the economic historian. To put it bluntly: An analysis of the monetary system in the ancient oriental mode of production will hardly be able to ignore the results of archaeology, while the results of demographic research can be largely disregarded; on the other hand, the opposite is true for the analysis of the financial system in developing countries; the study of feudal property relations cannot do without a jurisprudential consideration, but it can do without technical studies, while the reverse is true for the analysis of the productive forces in feudal agriculture. However, these examples also show that there are mediations of varying degrees: The study of finance in the developing world does not require direct consideration of archaeological research results, but insofar as this must remain incomprehensible without knowledge of ancient Near Eastern financial relations, they are indirectly incorporated into the research results; the analysis of feudal agrarian productive forces does not require direct consideration of legal research, but insofar as the productive forces and their development must remain incomprehensible without knowledge of property relations, they are indirectly incorporated into the research results. If we further consider that, on the one hand, archaeological research on the ancient oriental mode of production has to take philological research into account and, on the other hand, legal-historical research on the feudal mode of production has to take philosophical-historical research into account, then we already have twofold mediated relationships before us. There is no economic-historical, no economic-scientific object of investigation that exists "in itself", there is no economic science "in itself". To put it bluntly, the entire system of sciences can be "occupied" with a single object of investigation - across a sufficiently large number of mediations. We will come back to this problem when we look at the relationship between economic and universal history. However, two questions should be addressed here that play a role when considering the system of economic science and, in particular, the subsystem of economic history.

On the one hand, the existence of so-called borderline sciences is often claimed, e.g. economic law, economic geography (some also include economic[54] history). In our opinion, this results from the confusion between the object of research and the object of investigation. Although the objects of study in these special fields are an integral part of the object of research in both economics and (in the examples mentioned) law or geography, they are investigated using legal or geographical methods. Because they are not investigated using the method of political economy, economic-legal and economic-geographical issues are the subject of specialized areas of law and geography and not the subject of "borderline sciences". To make it very clear: If the geologist in Central Africa examines the soil, the main means of production there, he is by no means a "frontier scientist".

It should be noted that this problem is often answered much less precisely in the historically descriptive sub-sciences than in the logically descriptive sub-sciences. This is probably mainly due to the fact that the latter usually deal more intensively with the "logic of things", whereas the former usually deal more intensively with the "history of things" and sometimes lose sight of the logic itself. There is no other explanation for the fact that economic historians, on the one hand, never think of incorporating sociology into political economy

(or vice versa), but social history - the historical counterpart of sociology - should be incorporated into economic history (or vice versa). Anyone who regards the subject and method of political economy as distinct from those of sociology should logically also distinguish between social and economic history in the same way (cf. e.g. [30, 49, 58, 101]).

1.1.9. Base and superstructure

The mode of production as the dialectical unity of productive forces and relations of production "determines the social, political and intellectual process of life in general" [MEW 13: 8 f.]. According to the materialist view of history, therefore, "the ultimate causes of all social changes and political upheavals are to be sought neither in nature and technology nor in politics and ideology, but in the *economy* of the epoch in question ..." [MEW 20: 58 f.]. [MEW 20: 248 f.] Because this is the case, we also refer to the mode of production as the basis. This economic basis corresponds to a social superstructure. The dialectical unity of base and superstructure is the social formation whose real expression is the existing society (just as the economy is the real expression of a mode of production). Because in objective reality the development and structure of the economy determine those of society - just as a concrete-historical mode of production is nothing other than the *basis* of a concrete-historical social formation - we can and must say: "Economic science is ... a fundamental science for all social sciences and, to the extent that nature is socialized, also for the science of changes in nature ..." [57: vol. 8, 43]

Of course, economics is not a "superscience" that explains the processes in the superstructure, because the real connection between the basis and the superstructure is not a mechanical one. Engels pointed this out several times in his "Altersbriefe", for example as follows: "Political, legal, philosophical, religious, literary, artistic, etc. development is based on economic development. Development is based on economic development. But they all react to each other and to the economic basis. It is not [the case] that the economic situation is the *cause, the only active factor*, and that everything else is merely a passive effect. Rather, it is [55] interaction on the basis of the economic necessity that always prevails *in the last instance*." [MEW 39: 206] From the interaction of base and superstructure that takes place in reality, it also follows that the former can only be investigated if this interaction is taken into account. Thus, if we define the mode of production of human society as the object of research in economic history, this definition does not exclude the superstructure as an object of investigation for the economic historian, but rather includes it to the extent that the superstructure and its changes have an effect on this mode of production or its section under investigation.

Marx's formulation that "it is not people's consciousness that determines their being, but conversely their social being that determines their consciousness" [MEW 13: 9] must not be interpreted mechanistically and should always be read in conjunction with Lenin's formulation:

"The consciousness of man not only reflects the objective world, but also creates it." [LW 38: 203] All great and consciously organized social changes were preceded by changes in people's consciousness. This is the actual content of Lenin's judgment:

"Without revolutionary theory there can be no revolutionary movement." [LW 5: 379] But because consciousness, figuratively speaking, "can never be anything other than conscious being" [MEW 3: 26], consciousness aiming at change (if it does not want to remain utopian) presupposes a changeable being: "It is not enough that the thought pushes towards realization, reality itself must push towards thought." [MEW 1: 386] Thus, the implementation of socialist property relations presupposes a changeable being. [MEW 1: 386] Thus the implementation of socialist property relations presupposed the political seizure of power by the proletariat, which is unthinkable without revolutionary theory; the latter, however, could only emerge when the economic basis of capitalism had advanced so far that its contradictions *pointing beyond it* had become obvious, so that they could be reflected upon by consciousness. Social orders based on stationary, stagnating modes of production therefore bring about

usually does not produce a revolutionary, truly transformative consciousness, but only a stationary, stagnant one (see [13: 15 ff.]).

Because people's existence ultimately determines their consciousness, because the mode of production is logically and historically the *real* basis of society, economic science is, as quoted above, a basic science in a double sense: it examines the basis of social life and thus provides the basis for understanding the processes and conditions *produced by humans* in nature and society; the basis, the foundation - but of course not the entire building. And in this sense, economic history as a historically descriptive sub-science is also the basis of all historically descriptive sub-sciences.

1.1.10. Economic history and universal history

Some economic historians may not be entirely satisfied with the classification of their field of activity as economic science and say that they actually consider themselves more of a "historian" than an economist.

When we speak of historical science today and call the scientists who practice it historians, we mean a scientific discipline that deals with the historical representation of politics (see [57: vol. 8, 19]) and is thus a sub-science of political science (also called political science) (for this see [69: 948]).

[56] The economic historian who considers himself more of a "historian" should also bear the following in mind: While it is quite conceivable that a legal scholar might first devote himself to the historical presentation of the law - without being a "historian" - and later write an account of legal theory (and vice versa), it would be very difficult for this legal scholar to suddenly write accounts of economic history (or, to put it bluntly, of music history or paleobotany), because in this case he would have to turn to a completely different object of research with a different methodology of research.

This has nothing to do with the fact that the person writing an account of economic history should not treat his object of study in as many ways as possible, that he should always present the political-historical side, that in many cases he will present the social or technical or legal-historical side, that he will perhaps also consider the literary or art-historical side, etc., all this depending on the object of study, but also on his personal intentions and interests. The economic historian working in this way and cooperating with neighboring disciplines will present his object of investigation in a complex way - but of course it is an economic-historical account that he is writing.

On the other hand, the fact that economic historians regard themselves more as "historians" than as economists draws our attention to a situation that has no justification whatsoever: Political economists today - if they do not draw on the works of the classics of Marxism-Leninism - only systematically present contemporary history, so that every economist who is not directly concerned with the present must automatically feel that they belong more to the scientists working in the same period and in related fields (i.e. above all political and social historians).

But even if the economic historian is an economist, it makes perfect sense to bring together representatives of all the sciences involved in the historical representation of their respective research subject in an interdisciplinary work, namely when the aim is to write a universal history or *histoire integrale*. A universal history of this kind would not be an individual academic achievement, even if it could be written by a single person, for example in the form of an outline. This is how Herder's

"Ideas on the Philosophy of the History of Mankind" with the chapter "Our Earth is a Star among Stars" and the sentence: "Our philosophy of the history of the human race must begin in the heavens if it is to be worthy of the name." [34: Vol. 1, 17] A historical account of the universe would have to be given in such a universal history.

(Here and in the following, we understand the universe to mean the totality of all processes in nature and society, i.e. what is often referred to as the world. However, because the concept of world history in Marx's understanding of history is limited to a very specific period in the history of humanity [MGr 30], we speak here of universe and universal history).

But today we are not only very far removed from such a universal historical account, its very idea seems to have been completely forgotten, since today universal history is understood to mean "only" the history of human society [57: vol. 8, 39 ff.], which was itself seen as the culmination of all historiography (see e.g. [106: 20 f.]). Some scholars refer to such a reduced universal history as the history of mankind [57: vol. 8, 46] [79: 21], and in relation to individual countries and regions also as cultural history [80: 47] [38: 35 ff.]

"histoire des civilizations" (where civilization in French is much broader than [57] civilization in German) [66], as social history [8] [16] [64], as general or integral history [17] or simply as history [62: 93]. Regardless of which term one uses - we would prefer the term social history (history of society as opposed to history of nature) - we must realize that today we are also quite far removed from this reduced universal history. Even the numerous efforts, especially by representatives of the French Annales school, have not been able to change this very much, and we even have to go one step further: "... the widespread unfamiliarity with the ... economic theorists of the 18th century generally makes the newer school (the "Annales" - the author) appear too original and significant" [57: vol. 8, 175]. We cannot go into these representatives of social history in detail here (see [57: vol. 8, 69 ff.] and [76]), but we will at least mention them: the Scots Ferguson [22], Home [36], Millar [77] and Smith [99], the French Goguet [27] and Turgot [111: 257 ff.].

The object of investigation to be presented historically in a social history is society (just as it is the economy in a treatise on economic history). However, as already mentioned, society is nothing other than the real expression of the social formation. And this social formation, as the concrete totality of social relations, is the object of research not only of social history, but also of its logically representative counterpart, social theory, specifically: historical materialism. The unity of both, social history and historical materialism, is what Engels calls historical science [MEW 20: 480; 21: 357], what today is called the system of social sciences.

Historical materialism is therefore not reducible to methodology; it also includes the logical representation of its concrete object of research, the social formation. "Historical materialism does not investigate the particular laws that determine the existence and development of economic, political or intellectual processes, but rather *the general laws of development of society, the laws of the emergence and existence of economic social formations and the driving forces behind their development.*" [122: 256] It is therefore not an individual science. If we define the object of research of political economy and economic history to be not only the modes of production, but also their elements, we cannot say that the object of research of historical materialism also includes the elements of social formations. Thus, for example, the logical presentation of the modes of production as a (fundamental) element of social formations is not one of the tasks of historical materialism, but is the task of political economy. If a philosopher today writes a book on "The Dialectics of Productive Forces and Production Relations", which also contains a section on "Historical Types of the Mode of Production" [19: 75 ff.], then he has transformed himself into an economist. Therefore, every social scientist must be (more or less) a historical materialist if he wants to discover the specific laws of structure and development in his particular field of research, but no social scientist can *only be a* historical materialist, he can only be one in his individual science. And just as there is no such thing as the historical materialist "in itself", there is also no such thing as the historian "in itself".

Because historical materialism is of such fundamental importance for the writing of a social history, we must comment on the school of the "Annales": [58] "However, the influence of Marxism on it is not great enough and the tendency towards pre-Marxist historical materialism among the French and Scots of the 18th century was strong enough not to make the difference between the new direction and the 18th century appear excessive to us." [57: vol. 8, 175] This must be said, even if the role of economic history, which it has to play in a history of society, is very clearly expressed in the subtitle of the "Annales": Économies, Sociétés, Civilisations. One of its representatives even regarded economic history as a "basic discipline", as a prerequisite for the development of a "histoire humaine". [79: 21] But when he then defines its object of research as "the unfolding of the totality of the material conditions created for human beings, the natural and human preconditions for these conditions, their consequences for the development of society and the forms of individual and collective psychology" [79: 21], then we are no longer talking about economic history. Ultimately, he understands it - in his theoretical elaborations, not so much in his practical work, where he is a spontaneous materialist - as intellectual history: "L'esprit commande", the spirit determines, and its driving forces, the intellectual-psychological driving forces of an epoch, are ultimately to be uncovered. [79: 1, 208 f.]

But is it at all correct to give economic history a privileged place within the framework of social history, as Morazé does with a completely confused and J. Kuczynski with a very clear concept of economic history [57: vol. 8, 41 f.]? Such a position is certainly preferable to that which regards economic history as a "borderline science" and thus nolens volens transforms economic science into an ahistorical and historical science into an atheoretical matter (for this point of view, see [28] [98] [100] [131], among others), but is it really correct? Certainly, economic history is a basic discipline, an indispensable prerequisite for every *individual* social-historical discipline, since we can only reach the individual parts of the superstructure if we have climbed through the basis. In this respect, as stated above, economics is a basic science for every social scientist. However, as soon as it is a matter of writing social history, i.e. historically depicting the *entire* edifice of society and not individual parts of it, we cannot declare the depiction of the foundation to be more important than the depiction of the individual parts of the superstructure. Of course, a social history that does not also include the history of the economy is unscientific, but a social history that omits the historical representation of parts of the superstructure as "less important" is at best a materialistic torso, but by no means a social history.

Let us first clarify this fact using the example of an overall economic-historical presentation: Marx emphasized "that men do not freely choose their *productive forces* - the basis of their whole history" [MEW 4: 548]. In this respect, the historical representation of the productive forces is of fundamental importance vis-à-vis all other partial representations of economic history, but not vis-à-vis economic history as a whole; here it stands on an equal footing with the historical representation of the relations of production. Likewise, in every mode of production, it is "a particular production that assigns rank and influence to all others, and whose relations therefore also assign rank and influence to all others" [MGr 27]. An account of pre-social agriculture is therefore inconceivable without precise knowledge of the economy of appropriation; the relationship is analogous in the historical account of non-agricultural and agricultural production in pre-capitalist class societies, while conversely the development of capitalist agriculture must remain incomprehensible without knowledge of the development of capitalist industry. But an economic-historical account in which the respective subordinate production is omitted remains fragmentary in any case.

In order to arrive at a correct understanding of the overall edifice of social history, the social historian must start from the basis, the foundation, but he can only gain real knowledge, even of the foundation, if he knows the architecture of the overall edifice, the

social formation (whose real expression is society), the logical representation of which is provided by historical materialism. Therefore, within Marxism-Leninism, the logical representation of the basis, political economy, and the logical representation of the overall structure, historical materialism, are not treated in such a way that one is superior or subordinate to the other. In our opinion, the relationship between economic and social history should be viewed in the same way.

The socio-historical presentation, like the economic-historical one, should be as complex as possible, i.e. include the natural-historical side to the extent that it has influenced or is influenced by the history of society. As far as the first part is concerned, the role of nature in society, there are, apart from prehistory, which also deals with the natural process of becoming human, a few works. But these works, which were mainly initiated and written by economic historians, basically only show how little progress has been made in this field. Le Roy Ladurie's "Klimage- schichte" [67], for example, is an extremely commendable contribution to this subject, but here too, apart from the abundance of factual material, we must ask whether it really goes decisively beyond the insights that were already available in the 18th century, namely with Montesquieu [78].

The situation is quite similar and yet quite different for us when we ask ourselves to what extent the social transformation of nature by society has been incorporated into the historical representation of society. Quite similar because, apart from some historical observations in special works (e.g. [96]), there are in fact only representations of the present, quite different because we cannot look back to the models of the 18th century. These problems, whose logical representation was begun by human ecology or geoeology, still await almost complete historical representation. Even if the human ecologist, in contrast to the representative of biological ecology (in the narrower sense, excluding man), does not place the effect of the natural environment on the respective living being in the foreground of his observation [61: 18] but conversely the effect of man on his natural environment [81], he is nevertheless a natural scientist, his object of research is nature, which he examines with the methodology of the natural scientist.

But in contrast to natural history up to the appearance of man, the natural history of at least the last 12,000 years, since the beginning of the domestication of animals and the cultivation of plants, cannot be written without taking social history into account. Indeed, we must go one step further and say that, at the latest since the "invention of the domestic animal" [11], economic history has been the starting point and, in this sense, the foundation of a historical account of nature as changed by man, since the productive forces to be investigated by it are, as quoted at the beginning, "nothing other than the humanly formed possibilities of nature" [92: 78]. The extent to which economic history is the basic discipline for the histo-[60]rical depiction of nature transformed by man is demonstrated by a historically unique piece of evidence, the annual report of the Ruhr Association of 1933, which begins with the sentences: "The decline in the economy in the years after 1929 was favorable for the purity of the Ruhr in two respects. Industrial pollution decreased and the waterworks withdrew less and less water from the Ruhr." [130] In an antagonistic class society, the crisis of the economy diminishes the crisis of nature! Only here do we grasp the *ideological* content of the talk about an alleged "ecological crisis", which in reality is only a reflection of *social* antagonisms, of antagonisms that have their basis in the capitalist mode of production.

Such a historical account of society, written including the history of socialized nature, would be far more deserving of the name "universal history". But if we consider that a recently published outline of "World History up to the Formation of Feudalism" begins with the formation of the hominids, i.e. about 30-35 million years ago [133: 30], then it is quite clear that this can only be an anthropocentric "universal history", in which the natural process of becoming human is included. And because it was and is labor that created man [MEW 20: 444], we can say that economic history

"an integral, even in certain respects" - in what we are now *aware of* - "a fundamental part" [62: 93] of this anthropocentric universal history.

It is preceded by the history of nature for itself, and economic history has no place in it. However, "*nature*, taken abstractly, for itself, fixed in its separation from man, is *nothing* for man" [MEW EB 1: 587]; its history interests us only as the history of a nature that has produced us, that influences us and that we change as part of it. Let us consider, however, that ultimately no physical process produced by us can be considered in isolation, since "according to Einstein ... one cannot cut out a part of the cosmos and consider it in isolation without making an essential mistake" [108: 321], because the physics of the earth cannot be understood without that of the cosmos [108: 20 ff.], then it is clear, absolutely clear, that we have to be interested in the history of the universe. But just as we said above - varying Kant - that economic history without political economy remains blind to the facts, we now have to conclude that universal history also remains blind to the facts if it only explores the universe historically and not also logically. But the logical representation of the universe, of the world as a whole, is provided by dialectical materialism. As the result of the scientific appropriation of the world as a whole, it is a world view, a "total conception (theory) of the world as a whole" [94: 1287]. Like historical materialism (and for the reasons just given there), dialectical materialism can therefore, firstly, not be reduced to methodology and, secondly, not be regarded as an individual science. As a *scientific* worldview, as a theory of the world as a whole, dialectical materialism is based on *real* universal history: "Recognition and proof of the lawfulness of society and nature on the one hand, of the historicity of nature and society on the other, are the two

'Pillars' of dialectical materialism." [112: 139]

Just as the historical and the logical are inextricably linked in the research process, the results of this research process must be presented quite separately - logically as a world view and historically as universal history. In the ever-ongoing and never-ending process of elaborating a dialectical-materialist universal history and a universal-historical worldview, we return to ancient philosophy at a higher level, but not as the one, unstructured science that it was at the time and that positivism envisioned as a "unified science" [134] [23: 77 ff.], but as a structured whole, as a rich totality of many determinations and relationships, about which Marx wrote: "Natural science will later subsume the science of man", i.e. the science of society, "just as the science of man will subsume natural science; it will be *one* science". [MEW EB 1: 544]

Literature:

- 1 *Lenin, V. I.*: Konspekt zum "Briefwechsel zwischen Karl Marx und Friedrich Engels 1844-1883". Berlin 1963; 2. *Marx, K.*, in: Archiv Marksas i Engelsas. Vol. II (VII), Moscow 1933, p. 4 ff. (Reprint: Resultate des unmittelbaren Produktionsprozesses. Frankfurt (M.) 1969); 3. *Ashley, W. J.*, in: The Study of Economic History. London 1973, p. 1 ff.; 4. *Ashton, T. S.*, in: *Economica* 1946 (NS 13), p. 81 ff.; 5. *Ashworth, W.*, in: The Study of Economic History. London 1973, p. 201 ff.; 6. *Bernhardt, K.-H.*, in: Beiträge zur sozialen Struktur des alten Vorderasien. Berlin 1971, p. 133 ff.; 7. *Biolat, G.*: Ökologische Krise? Berlin 1974; 8. *Bouvier, J.*, in: Geschichte und Ökonomie. Cologne 1973, p. 375 ff;
- 9 *Braudel, F.*: Écrits sur l'histoire. Paris 1969; 10. *Brecht, B.*: Schriften zur Literatur und Kunst. Vol. 2, Berlin/Weimar 1966; 11. *Brentjes, B.*: Die Erfindung des Haustiers. Berlin/Jena/Leipzig 1974; 12. *Chambers, J. D.*, in: The Study of Economic History. London 1973, p. 231 ff.; 13. *Chattopadhyaya, D.*: Indische Philosophie. Berlin 1975; 14. *Chaunu, P.*, in: Mélanges en l'honneur de F. Braudel. Vol. 2, Toulouse 1972, p. 105 ff.; 15. *Clapham, J. H.*, in: The Study of Economic History. London 1973, p. 55 ff.; 16. *Cochran, Th. C.*, in: Congresso Internazionale di Scienze Storiche, Relazioni. Vol. 1, Rome 1956, p. 481 ff.; 17. *Court, W. H. B.*, in: Approaches to history. London 1962, p. 17 ff.; 18. *Eichhorn I, W.*: Dialektischer und historischer Materialismus - ein Bestandteil des Marxismus-Leninismus. Berlin 1976; 19. *Eichhorn I, W./Bauer, A./Koch, G.*: Die Dialektik von Produktivkräften und

- relations of production. Berlin 1975; 20 *Eisler, R.*: Wörterbuch der philosophischen Begriffe. Vol. 1, Berlin 1927; 21. *Fanfani, A.*: Introduzione allo studio della storia economica. Milan 1960; 22. *Ferguson, A.*: Abhandlung über die Geschichte der bürgerlichen Gesellschaft. Jena 1923; 23. *Fiedler, F.*: Einheitswissenschaft oder Einheit der Wissenschaft? Berlin 1971; 24. *Finley, M. I.*, in: JWG 1971, T. II, p. 87 ff.; 25 *Fogel, R. W.*, in: American Economic Review 1965 (55), H. 3, p. 92 ff.; 26 *Ders.*: Die Neue Wirtschaftsgeschichte - Forschungsergebnisse und Methoden. Cologne 1970; 27 *Goguet, A. Y.*: Untersuchungen von dem Ursprung der Gesetze, Künste und Wissenschaften wie auch ihrem Wachstum bei den alten Völkern. Lemgo 1760; 28. *Gose, I.*: Analytische Grundlagen zur Systematisierung der marxistisch-leninistischen Wirtschaftswissenschaften. Berlin 1974 (Diss. A); 29. *Gößler, K./Thom, M.*: Die materielle Determiniertheit der Erkenntnis. Berlin 1976; 30. *Handke, H.*, in: JWG 1977, T. II, p. 123 ff.; *Haustein, H.-D.*: Die Proportionalität der technischen Basis im Sozialismus. Berlin 1975; 32nd *Hegel, G. W. F.*: Wissenschaft der Logik. Vol. 1-2, Berlin 1971; 33. *Heisenberg, W.*: Schritte über Grenzen. Munich 1971; 34. *Herder, J. G.*: Ideen zur Philosophie der Geschichte der Menschheit. Vol. 1-2, Berlin/Weimar 1965; 35. *Hoffmann, W. G.*, in: Geschichte und Ökonomie. Cologne 1973, p. 94 ff.; 36. *Home, H.*: Versuche über die Geschichte des Menschen. Leipzig 1774; 37. *Hughes, J. R. T.*, in: Geschichte und Ökonomie. Cologne 1973, p. 203 ff.; 38. *Huizinga, J.*: Versammelte Werken. Vol. 7, The Hague 1950; 39. *Il'enkov, [62] E. V.*: Dialektika abstraktnogo i konkretnogo v Kapitale Marksa. Moscow 1961; 40. *Janssens, P.*, in: History and Theory 1974 (13), H. 1, pp. 21 ff; 41 *Kant, I.*: Kritik der reinen Vernunft. Leipzig 1930; 42. *Kedrow, B. M.*, in: SW/GB 1973, H. 6, p. 646 ff.; 43. *Ders.*: Klassifizierung der Wissenschaften. Vol. 1, Moscow/Berlin 1975; 44. *Kelle, V./Kovalson, M.*: Der historische Materialismus. Moscow/Berlin 1977; 45. *Kellenbenz, H.*, in: Handwörterbuch der Sozialwissenschaften. Vol. 12, Stuttgart 1962, p. 125 ff.; 46. *Khalatbari, P.*: Ökonomische Unterentwicklung. Berlin 1971; 47. *Klenner, H.*: Rechtsphilosophie in der Krise. Berlin 1976; 48 *Knepler, G.*: Geschichte als Weg zum Musikverständnis. Leipzig 1977; 49 *Kocka, J.*: Sozialgeschichte. Göttingen 1977; 50. *Kohlmey, G.*, in: Sitzungsberichte der Akademie der Wissenschaften der DDR 1975, H. 4/G, p. 24 ff.; 51. *Kon, I. S.*: Die Geschichtsphilosophie des 20. Jahrhunderts. Vol. 1-2, Berlin 1966; 52. *Kopnin, P. V.*: Dialektik - Logik - Erkenntnistheorie. Berlin 1970; 53 *Kotow, I. W.*: Mathematische Methoden in der Ökonomie und politische Ökonomie des Sozialismus. Berlin 1974; 54 *Kuczynski, J.*: Die Geschichte der Lage der Arbeiter unter dem Kapitalismus. Vol. 13, Berlin 1961; 55 *Ders.*: Die Muse und der Historiker. Berlin 1974; 56. *Ders.* in: JWG 1976, T. II, p. 11 ff; 57 *Ders.*: Studien zu einer Geschichte der Gesellschaftswissenschaften. Vol. 1-10, Berlin 1975-1978; 58 *Ders.* in: JWG 1977, T. IV, p. 193 ff.; 59 *Ders./Heise, W.*: Bild und Begriff. Berlin/Weimar 1975; 60 *Kuczynski, Th.*: Zur Anwendbarkeit mathematischer Methoden in der Wirtschaftsgeschichtsschreibung. Berlin 1979 (Diss. B); 61 *Kühnelt, W.*: Grundriß der Ökologie. Jena 1970; 62. *Kula, W.*: Problemy i metody historii gospodarczej. Warsaw 1963; 63. *Ders.* in: Geschichte und Ökonomie. Cologne 1973, p. 255 ff.; 64. *Labrousse, E.*, in: L'histoire sociale. Paris 1967, p. 1 ff.; 65 *Lange, O.*: Politische Ökonomie. Vol. 1, Berlin 1969; 66. *Le Goff, J.*: La Civilization de l'Occident Médiéval. Paris 1964 (German: Munich/Zurich 1970); 67. *Le Roy Ladurie, E.*: Histoire du climat depuis l'an mil. Paris 1967; 68. *L'homme, J.*: Economie et histoire. Geneva 1967; 69. *Löwe, B. P.*, in: Philosophical Dictionary. Vol. 2, Leipzig 1974, p. 948 ff.; 70. *Lütge, F.*: Geschichte, Wirtschaft, Wirtschaftsgeschichte. Munich 1959; 71. *Luzzatto, G.*: Per una storia economica d'Italia. Rome/Bari 1974; 72. *Marczewski, J.*: Histoire quantitative. Paris 1961; 73. *Maurer, G.*: Essay 1. Halle 1968; 74. *Mauro, F.*, in: Cahiers de l'Institut de Science économique appliquée 1959, H. 79, p. 45 ff.; 75. *Ders.*: Nova historia e novo mundo. São Paulo 1969; 76. *Meek, R.*: Social Science and ignoble savage. Cambridge 1976; 77 *Millar, J.*: Vom Ursprung des Unterschieds in den Rangordnungen und Ständen der Gesellschaft. Frankfurt (M.) 1967; 78. *Montesquieu, Ch. L.*: The Spirit of the Laws. Leipzig 1891; 79. *Morazé, Ch.*: Introduction à l'histoire économique. Paris 1952; 80. *Ders.*: Trois essais sur histoire et culture. Paris 1948; 81 *Mottek, H.*, in: WiWi 1972 (20), H. 1, p.

36 ff; 82 *Nahčadžjan, A. A.*: Intuition in Scientific Creativity. Berlin 1975; 83. *Pavlov, T.*: The theory of reflection. Berlin 1973; 84 *Pokrytan, A. K.*: Production relations and economic laws of socialism. Berlin 1973; 85. *Power, E.*, in: *Economica* 1934 (NS 1), p. 13 ff.; 86. *Promachina, I. M.*, in: *Mate- matičeskie metody v issledovanijach po social'no-ëkonomičeskoj istorii*. Moscow 1975, p. 283 ff;

- 87 *Redlich, F.*, in: *Geschichte und Ökonomie*. Cologne 1973, p. 242 ff.; 88. *Robbe, W.*, in: *JWG* 1962, T. II, p. 95 ff.; 89 *Robbins, L.*: *An Essay on the Nature and Significance of Economic Science*. London 1932; 90. *Rose, K.*, in: *Jahrbücher für Nationalökonomie und Statistik* 1953 (165), H. 5/6, p. 321 ff.; 91. *Rosental, M. M.*: *Die dialektische Methode der politischen Ökonomie von Karl Marx*. Berlin 1973; 92. *Ruben, P.*, in: *Weltanschauung und Methode*. Berlin 1969, p. 51 ff.; 93. *Schließer, W.*, in: *Ökonomisches Lexikon*. Bd. 2, Berlin 1967, p. 1136 f.; 94. *Schuffenhauer, W.*, in: *Philosophisches Wörterbuch*. Vol. 2, Leipzig 1974, p. 1287 ff.; 95. *Schulze, G. E. R.*: *Zur [63] Rolle des Einfachheitsprinzips im physikalischen Weltbild*. Berlin 1974; 96. *Skopincev, B. A.*: *Formirovanie sovremennogo chimicheskogo sostava vod*. Leningrad 1975; 97. *Skvorcov-Stepanov, I. I.*, in: *Contributions to the history of the political economy of socialism*. Berlin 1975, p. 216 ff.; 98. *Slicher v. Bath, B. H.*, in: *Afdeling Agrarische Geschiedenis Bijdragen* 1967, H. 14, p. 105 ff.; 99. *Smith, A.*: *Eine Untersuchung über Natur und Wesen des Volkswohlstandes*. Vol. 1-3, Jena 1923; 100. *Sneller, Z. W.*: *De economische geschiedenis in hare betrekking tot economie en geschiedenis*. Amsterdam 1939; 101 *Stark, W.*, in: *Archiv für Rechts- und Sozialphilosophie* 1968 (54), H. 4, p. 485 ff.; 102 *Steenbeck, M./Scheler, W.*, in: *Deutsche Zeitschrift für Philosophie* 1973 (21), H. 7, p. 781 ff.; 103 *Stephan, B.*: *Evolution der Sozialstrukturen*. Berlin 1977; 104. *Stiehler, G.*, in: *Deutsche Zeitschrift für Philosophie* 1978 (26), H. 3, p. 293 ff.; 105. *Supple, B. E.*, in: *The Experience of Economic Growth*. New York 1965, p. 1 ff.; 106. *Tawney, R. H.*, in: *Economica* 1933 (13), H. 39, p. 1 ff.; 107. *Tyulpanov, S. I.*: *Political economy and its application in developing countries*. Berlin 1971; 108. *Treder, H.-J.*: *Philosophische Probleme des physikalischen Raumes*. Berlin 1974; 109. *Trifonov, D. I.*, in: *Ekonomičeskie nauki* 1972 (15), H. 9, p. 12 ff.; 110. *Tuchscheerer, W.*: *Bevor "Das Kapital" entstand*. Berlin 1973; 111. *Turgot, A. R. J.*: *Œuvres*. Vol. 1, Paris 1913; 112. *Wahsner, R.*, in: *Struktur und Prozeß*. Berlin 1977, p. 132 ff.; 113. *Weizsäcker, C. F. Frh v.*: *Die Geschichte der Natur*. Göttingen 1964; 114. *Wygodski, W. S.*: *Die Geschichte einer großen Entdeckung*. Berlin 1969; 115: *How "Das Kapital" came into being*. Berlin 1976; 116. *Youngson, A. J.*, in: *The Study of Economic History*. London 1973, p. 219 ff.; 117. *Zelený, J.*: *Die Wissenschaftslogik bei Marx und "Das Kapital"*. Berlin 1968; 118. *Zorn, W.*: *Einführung in die Wirtschafts- und Sozialgeschichte des Mittelalters und der Neuzeit*. Munich 1972; 119. *definitions of important key figures and terms for planning and statistics*. Berlin 1965; 120. *history of Marxist dialectics from the emergence of Marxism to the Leninist stage*. Berlin 1974; 121 *History and Economics*. Cologne 1973; 122. *Fundamentals of Marxist-Leninist Philosophy*. Berlin 1971; 123. *Fundamentals of Economic Thought in Germany*. Berlin 1977; 124. *textbook political economy: pre-socialist production methods*. Berlin 1972; 125. *Natura e Metodo della Storia Economica*. Milan 1960; 126. *economic laws in the social system of socialism*. Berlin 1969; 127. *Politische Ökonomie*. Vol. 1, Berlin 1976; 128. *Politische Ökonomie (Vorkapitalistische Produktionsweisen und kapitalistische Produktionsweise)*. Berlin 1973; 129. *Politische Ökonomie des Kapitalismus und des Sozialismus*. Berlin 1974; 130. *Ruhrverband: Jahresbericht* 1933. Essen 1934; 131. *Sistema ekonomicheskikh nauk*. Moscow 1968; 132 *The Study of Economic History: Collected Inaugural Lectures 1893-1970*. London 1973; 133 *World History up to the Formation of Feudalism*. Berlin 1977; 134 *Scientific view of the world*. Vienna 1929.

Editorial board

[64]

1.2. Political economy

1.2.1. Introduction: object of study, political economy and economic history

Political economy can be regarded as a "theoretical" science, economic history as an "empirical" science. Both examine and describe the same object: the movement and development of economic, social systems, of production methods. Both sciences are therefore directly and closely related and depend on each other to fulfill their specific tasks.

Their connection is to be understood in two ways: as the connection between the "theoretical" and the "empirical" and as the connection between the "logical" and the "historical". However, as much as political economy embodies the "theoretical-logical" method of investigating the subject matter on the one hand and economic history the "empirical-historical" method on the other, each of these two sciences is the unity of all the moments mentioned here, only in different ways.

While political economy uncovers the *general economic laws* of the movement and development of the modes of production and thus the abstract essence of the movement of the material basis of society, economic history uncovers the concrete realization of this movement under concrete historical circumstances, in all their diversity of accidental, individual and special conditions. While political economy examines the individual types of modes of production in their "ideal average", so to speak, without all transitional forms, economic history captures the concrete and particular situation of transition, the coexistence of modes of production and their struggle in the past and present.

If Marxist-Leninist knowledge of economic social systems is to serve its purpose of providing the working class with a basis for a scientifically founded policy for overcoming imperialism and building a developed socialist society, then the unity of all methodological aspects of this knowledge and thus the unity of economic history and political economy in the analysis and genetic representation of the development of the modes of production is a prerequisite.

Political economy is no more an ahistorical science (as it was understood by classical bourgeois economics before Marx) than economic history is an atheoretical science. The terms "logical" [65] and "historical" are therefore used here to denote two distinct but mutually interpenetrating methods of understanding self-organizing and simultaneously historically developing systems, both of which belong to economic history as well as political economy, only at different levels of investigation and representation.

On the one hand, it is the theoretical (in this sense "logical") knowledge of social modes of production that political economy has to provide. It must demonstrate the unity of the movement (function) of a mode of production and its development, the unity of the laws of movement and development of a mode of production in a logically constructed theory. The transformation of political economy into a historical science is precisely the decisive ideological achievement of Marx, with which he turned political economy into a weapon in the class struggle of the working class. On the other hand, it is the empirical, historically concrete (and in this sense "historical") knowledge of social production methods that economic history has to provide. It must include the unity of theoretical and empirical knowledge in the analysis and representation of concrete historical conditions, in the depiction of the coexisting and successive historical forms of production, if it is to arrive at the correct insights.

Theoretical ("logical") analysis and representation of the function and development of economic systems presupposes empirical ("historical") description and analysis. Empirical ("historical") analysis presupposes theoretical ("logical") knowledge of the modes of production. The

The real process of recognizing social economic systems thus means the unity of theoretical and empirical-historical knowledge, the unity of the "logical" and the "historical", their mutual interpenetration. The real process of cognition means the unity of political economy and economic history. From this point of view, some basic features of political economy are to be presented here.

We note here that the theoretical aspect of *development* has so far been little elaborated in political economy, that knowledge in this respect must penetrate more deeply into the law of correspondence between productive forces and relations of production formulated in historical materialism. Political economy is primarily concerned with the analysis and representation of the "ideal average" of a mode of production and examines the function, the self-organization of the system and thus its reproduction, i.e. its qualitative stability. The inclusion of the historically developed and passing, of the historical character of the laws that determine the function of this organism, is a given; a closed political-economic theory of historical development within a qualitatively constant mode of production, which could be directly linked to economic history, does not yet exist.

1.2.2. Object and subject of political economy

Political economy is the main component of Marxism-Leninism, the scientific world view of the working class. It is a theoretical science.

Every science conducts its research on a specific *object*, a sub-area or the totality of objective reality. Political economy is the fundamental social science. Its object of investigation is the sphere of [66] production and reproduction of the material life of society, the mode of production of society.

Every science examines certain structures and certain laws of movement and development of objective reality in its object. The particular structure or the particular movement that a science investigates in its object is the object of this science. According to a definition by Engels, the *subject* of political economy are the laws "*which govern the production and exchange of material subsistence in human society*" [MEW 20: 136].

The subject of political economy is therefore the laws of the movement and development of the exchange of labor - the "exchange of activities" (Marx) - between the individuals of a given society. In labor, a natural material exchange (exchange of substances) takes place between man and nature on the one hand, and an exchange of material activities between the members of society on the other. The metabolic process thus has a specific social structure.

The metabolic process between man and nature, which we define as the process of movement of the productive forces, is the material basis, the material content of economic forms and laws. Economic laws are social laws of the movement of the material exchange process. However, their character is not determined by their material content, but by the social form in which the exchange of material activities takes place within society (relation of production).

The material content of movement (productive force) requires certain social forms of its movement at every stage of its development. These social forms (relations of production) in turn determine the laws of movement of the metabolic process between man and nature. This insight of Marx and Engels, a fundamental thesis of historical materialism, first laid down in 1845 in the work "The German Ideology", is the methodological starting point for the theoretical and historical analysis and presentation of the laws of the movement of the production of social life.

With the definition of the material realm of society, the uncovering of its inner structure as a dialectical relationship between productive force and production relations, the elaboration of productive force as the ultimately decisive element for social development, the emphasis on production relations, i.e. material class relations, as the determining relations for the analysis of economic laws, etc., political ecology became a science of the working class.

Marx later summarized these findings as follows:

"In production, people do not relate to nature alone. They only produce by working together in a certain way and exchanging their activities with one another. In order to produce, they enter into certain relationships and relations with each other, and it is only within these social relationships and relations that their relationship to nature, that production takes place.

According to the character of the means of production, these social relations in which the producers stand to each other, the conditions under which they exchange their activities and participate in the total act of production, will naturally differ ... The social relations in which individuals produce, *the social relations of production, thus change, transform [67] with the change and development of the material means of production, the forces of production. The relations of production in their totality form what is called social relations, society, a society at a certain stage of historical development, a society with a peculiarly different character. Ancient society, feudal society, bourgeois society are such aggregates of relations of production, each of which at the same time denotes a particular stage of development in the history of mankind*" ([MEW 6: 407 f.] - emphasis added).

In the social production of their lives, people therefore enter into certain necessary material relations that are independent of their will, which we call relations of production. The relations of production correspond to a certain stage of development of the material productive forces of human beings.

"The totality of these relations of production forms the economic structure of society, the real basis on which a juridical and political superstructure rises, and to which certain social forms of consciousness correspond ... It is not the consciousness of men that determines their being, but conversely their social being that determines their consciousness. At a certain stage of their development, the material productive forces of society come into conflict with the existing relations of production or, which is only a legal term for it, with the relations of property within which they had hitherto moved. As forms of development of the productive forces, these relations turn into shackles on them. A stage of social revolution then occurs. A social formation never perishes until all the productive forces for which it is sufficiently advanced have been developed, and new, higher relations of production never take their place until the material conditions of their existence have been incubated in the womb of the old society itself." [MEW 13: 8 f.]

Economic laws are determined by the system of production relations. If the relations of production change, if a new system of relations of production emerges, the system of economic laws in which the metabolic process between man and nature moves also changes.

1.2.3. The internal structure of the political economy

Political economy reflects the laws of the individual modes of production in a dialectically consistent theoretical system, in contrast to economic history, which reflects the modes of production empirically in their concrete manifestations, including their accidental, temporal and other special moments.

The metabolic process between humans and nature is characterized by four phases: Production, distribution, exchange (circulation) and consumption. Accordingly, in the process of exchanging their activities, people enter into social relations of production, distribution, exchange and consumption.

The relations of production in their entirety are therefore divided into relations of production (in the narrower sense), relations of distribution, relations of exchange (relations of circulation) and relations of consumption. Just as production represents the overarching moment over the totality of the four phases of reproduction, so the relations of production (in the narrower sense) are the overarching relations [68] over the totality of all relations in reproduction. The relations of production are the essence of all social relations in production.

As social relations, the relations of production are also constituted by the active, mass, repetitive mutual behavior of individuals in the metabolic process with nature. They are defined as relations in relation to the objective conditions (preconditions) of production. In this respect, they are property relations.

Just as social production must be considered twice, so too must production relations be considered twice:

– As a *production process* (unmediated production). The analysis of the production process of a mode of production is based on the basic behavior of people in production, the relationship between direct producer and owner. This relationship characterizes the socio-historical nature of the connection between producers and the means of production.

– As the overall *process of production* (mediated production). The analysis of the overall process of production is based on the relations of production that connect the producers to a social totality of producers. The basic relationship of production (basic production relationship, also property relationship) reveals the social way in which the producers are connected to the means of production. It determines the socio-economic type of a mode of production, its fundamental nature. The basic relationship determines the social character (the social form) of the production process and thus the basic law of the respective mode of production, the goal and means of social production. It also determines the general law of the development of the mode of production, in capitalism the general law of capitalist accumulation, as well as all other laws.

The relations of production of the overall process of production reveal the social way in which the producers are connected to each other to form a social totality of producers. This relation of production is usually derived from the basic relation, it is based on it and determines the socio-economic type of connection between the producers derived from the basic relation. It is the essence of the "second order" (Lenin) of a mode of production.

The production relations of the overall process of production shape the character of those economic laws that bind the producers together (e.g. the law of value and the law of average profit, of interest, of land rent or the law of planned proportional development in socialism).

The character of the fundamental relation of production cannot be determined without the character of the relation of production of the overall process of production. However, the fundamental relation of production is the overarching moment over the totality of the relations of production and the totality of all social relations in production. Consequently, the fundamental law of a mode of production determines the essential character of all economic laws of this mode of production, although its character itself cannot be understood without the laws of the connection of producers to a totality of producers (the law of surplus value cannot be understood without the law of value, the fundamental law of socialism cannot be understood without the law of planned-proportional development).

The relations of production, which determine the character of economic laws and thus the movement of the metabolic process between humans and nature, are not sensibly empirically perceptible as relations, in contrast to the behavior of individuals. The relations of production are accessible to empirical, historical knowledge in three concrete forms:

- As the behavior of individuals towards each other in the production and reproduction of social life (in relation to the means of production, the production process and the results of production). This includes, for example, class relations per se, competitive relations, relations of competition under socialism, cooperative relations, etc.
- As the behavior of individuals towards the conditions of production, the process and the results of production. This includes, for example, the forms of ownership, the social character of work, the qualification requirements, the modes of consumption, etc.
- As social characteristics of the metabolic process between man and nature, the elements and phases of the metabolic process. These include the development of the productive forces in their entirety, the character of labor, the proportions of development, the development of the position of classes, the forms of value, etc.

Further possibilities of recognizing the relations of production and the corresponding system of laws lie indirectly in the analysis of economic-related behavioural patterns of people in the superstructure of society, such as political, planning, management behaviour, etc., which are requirements of the material basis or production of society reflected in social consciousness.

Political economy initially takes the totality of a *system* of relations of production as a given, i.e. unchangeable. It abstracts from all accidental and particular historical circumstances under which this system moves and examines the laws that determine the process of material exchange under this system of relations of production. For political economy, the ideal organization, the average of the movement of the type of a mode of production, is the basis for developing the laws of human action and behaviour. Political economy is therefore concerned with the theoretical (dialectically consistent) analysis and representation of the type of the various modes of production, with their ideal average, so to speak.

Economic history, on the other hand, takes the relations of production as they are as the basis of its investigations. It examines the historical emergence and decay of the most diverse relations of production alongside and after one another, their struggle with one another in connection with the forces of production. It deals with the concrete historical development, the transition from one system of relations of production to another, with the struggle between different relations of production.

For political economy, the already developed relations of production of a certain type of mode of production are a given prerequisite, from which it derives the general laws of people's economic behavior. Here, the relation of production is the law of behavior and thus of production. Conversely, it is important for economic history to examine the constitution of new relations of production, their development and unfolding, and thus the historical enforcement of new laws, from the change in the behavior of individuals. [70]

1.2.4. "Logical" and "historical" in the analysis of the basic production relationship (property relationship)

The theoretical distinction between the production relation of the production process (basic production relation) and the production relation of the overall process of production is of crucial importance for revealing the relationships between "logical" and "historical" analysis and representation of the modes of production.

There are two basic types of fundamental production relations (property relations) in the history of mankind: social and private property relations. Social ownership means the unity of producer and owner. Producer and

Owners are the same persons; they behave as equals and therefore as equals. Private basic relationship means that producer and owner are separate, mutually alien persons. They behave towards each other as unequal, as strangers and enemies. Basic social relation always means the unity of labor and property, means (from the point of view of the relation of production) free labor; basic private relation always means the separation of labor and property, unfree, exploited labor and thus class division of society into exploiters and exploited. The different *types of private basic relationship* are determined by the different ways in which producer and owner (and thus producer and means of production) are connected. In the above quote [MEW 6: 407 f.], Marx distinguishes three basic types of this connection: slavery (ancient mode of production), feudal mode of production, capitalist mode of production. (We will leave out of consideration here the form of production that Marx refers to elsewhere as the Asiatic mode of production; in our opinion, it has not yet been sufficiently analyzed as a type). The modes of production, which are characterized here by a specific connection between producer and owner or labour and property, indicate in this logical sequence the rise from lower to higher forms of the private basic relation of production. The criterion for determining this ascent is the scope that the respective conditions give to the development of the productive forces and the situation of the immediate, exploited producer with regard to his social function of enforcing the higher development of society.

The basic private relationship of slavery means the complete separation of labor and property. The connection between the producer and the objective conditions of production takes place through the appropriation of the slave's person by the owner (be this a private person or the society of the free) as an accessory to the conditions of production. In this relationship, the producer is considered a thing, a "speaking tool". It seems that the entire product of the producer is appropriated by the ruling class. The basic private relationship of feudalism generally only separates the producer from the main means of production, land, but generally establishes him as the private owner of all other means of production. It binds the producer as a serf to the land of the feudal lord and forces him to hand over most or all of the surplus product to the feudal owner of the land (rent). In this relationship, the producer acts as an independent private producer. The necessary and the surplus product seem to be exactly separated.

The basic private relationship of capital means the complete separation of [71] property and labor as in slavery. In contrast to the slave, however, the producer is not only free from the means of production, but also personally free. As such a doubly free wage laborer, he is forced to sell his labor power to the owners of the means of production. In this relationship, the producer is regarded as a personally free producer who, however, through the sale of his labor power, becomes a material accessory of capital, of the self-valorization of value (wage slavery). It seems that the worker receives payment for all his labor.

Although the basic relationship of slavery enables the simple cooperation of slave labor and thus a certain increase in productivity, it generates the producer's absolute disinterest in production and thus sets relatively narrow limits to the development of the productive forces. The development of the metabolic process under this form is essentially extensive.

The feudal form of the private basic relationship establishes the private interest of the producer in the development of production and thus brings to bear the driving force of the private property of the producers for the development of the productive forces. The feudal form and the private interest of the feudal simple commodity producers lead to the emergence of the preconditions for the transition to the capitalist mode of production, a certain higher level of productivity in agriculture and a developed commodity production and circulation.

The capitalist form of the basic relationship re-establishes the absolute lack of interest of the producer in the development of production, but at the same time it creates the possibility,

to connect the producers en masse as socialized producers with masses of concentrated, socialized means of production, and through the economic compulsion of the "discipline of hunger" ensures a rapid development of the productive forces that is unique in the history of mankind.

The progress in the situation of producers in the modes of production is obvious. The development of the personal freedom of the producer from slavery to capitalism creates the doubly free, socialized producer of capitalism, who, on the basis of this precondition, organizes himself as an oppressed class on a national scale and is able to lead the struggle for the liberation of his class and of humanity as a whole from exploitation and oppression victoriously.

The creation of a new basic relation of production and thus the transition to a new mode of production usually takes place in a particular, violent, revolutionary, historical process. The necessity for this arises from the fact that a basic relationship, once constituted, reproduces itself in its basic quality and, as a rule, does not evolve into a new basic type of production. The question of property is the basic social question of every revolution.

For political economy, which studies the ideal type of function of a mode of production, the relation of production is the *given precondition for the study of the behavior* of producers and for the regularity of the metabolic process that results from this behavior. For economic history, insofar as it includes the transition from one mode of production to another as the main moment of its investigation, it is important that the new *basic relation is constituted by the fact that an extra-economic compulsion is exerted on the behavior of the producers* in the sense of the necessary new relation of production. Thus the capitalist relation of production was constituted by the partial or complete forcible expulsion of the peasants from the land and their forcible transformation into [72] wage laborers who must sell their labor power (original accumulation). After the seizure of power by the proletariat, the socialist or communist basic relationship arises in a process of violent expropriation of the capitalists and the violent securing of the new production behaviour of society by the dictatorship of the proletariat, whose function, according to Lenin, is not primarily violence against the defeated exploiters, but primarily this organizational-educational function: to make the behaviour of all members of society adequate to the objectively necessary new production relationship and thus to constitute this relationship.

The use of superstructure and state violence to maintain a new basic relation is always necessary as long as the material conditions of production for the spontaneous reproduction of the new basic relation (its self-organization) are not yet developed or (in the case of pre-capitalist modes of production, in which stagnant states of production are the law) until tradition reproduces the relation in a stable manner and free of historical contingency in the same way again and again (see [MEW 25: 801 f.]).

A basic relationship of production is relatively insensitive to the technical basis on which it functions. It is true that a new basic relation does not emerge before the conditions of its existence have matured, the productive forces have reached the limits of the old relations of production *and* social forces have grown up in whose interest it is to constitute this relation. But these conditions are not necessarily identical with the conditions of the material-technical basis on which the relationship reproduces itself as a self-organizing system. Thus, according to Marx [MEW 23: 328], capital takes possession of production as it finds it, on an artisanal-technical basis. However, it is only with large-scale industry (production of machines by machines) that it has the technical basis *adequate to* it and reproduces itself without the use of violent measures of superstructure (see [MEW 23: 405, 532 f.]). *Formal* subordination is followed by the *real* subordination of labor to the production relations of capital. We follow the analogous process in the development of the social property relations of socialism and communism, which in the phase of socialism requires the securing of behavior and thus of the relationship through the dictatorship of the proletariat before it can develop on the basis of the capitalist system.

freely reproduced on an adequate material-technical basis. The process that creates the material-technical basis of communism is the scientific-technical revolution, at the beginning of which we are currently standing.

The intervention of the state to forcibly maintain production behavior is also evoked in exploitative formations when they enter their decline stage (imperialism).

1.2.5. "Logical" and "historical" in the analysis of the production relations of mediated production

Just as with the basic relationship, there are two types of production relationships in the overall process of production: social and private.

By social relations of production of mediated production we understand such relations of men in relation to the objective conditions of production as signify a direct exchange of activities *in labor* [73] *itself* (planned-conscious mediation of the relation of the producers to one another).

By private relations of the producers to each other in relation to the objective conditions of production we understand an exchange of activities among themselves *through the exchange of products*, the results of activities (spontaneous mediation of the producers' relations through the objective regulation of relations by value; commodity production).

The direct connection of the producers *in the work itself* through a social collective will corresponds to the basic social behavior, i.e. the direct connection between producer and means of production. The value relation of the exchange of the products of labor and the *factual* regulation of the connection of the producers to each other to a totality of producers corresponds to the private basic relation of capital, which is based on the connection between producer and means of production through the factual exchange between labor capital and the worker's means of subsistence.

The forms of slavery and feudalism are essentially based on the self-sufficient natural economy of the commonwealths. In so far as material relations of exchange and value are introduced into these forms, which are based on the natural economy, they either, as in slavery, do not affect the mass of producers (who are and remain slaves themselves), but the free owners, in so far as the community is dissolved and divided into individual private owners. Or, as in the first phases of feudalism, they take more control of the exchange of the producers' surpluses. It is only in the highest phase of feudal production relations that the money rent becomes the dominant form of rent and thus commodity production based on the social division of labor becomes the most important form of linking the mass of producers to one another. It is precisely because of this that feudalism can be a decisive starting point for the development of capital and the transformation of labor power into a commodity (developed commodity circulation as a prerequisite for capital ownership, development of the private interest of the mass of society's members).

In slavery, the direct cooperation of producers in labor is enforced by the will of the slave owner as direct, immediate cooperation. In feudalism, the self-sufficient peasant economies maintain their cooperation within their small economy according to plan. Under capitalism, the planned cooperation of producers in the factory is enforced by the dictates of capital. It contradicts the anarchic connection between the capitals through the exchange of goods as products of capital.

The historical relationship between the basic relationship and the mediation relationship of production is reflected in the dialectically logical structure of the system of political economy of a mode of production in two ways:

- in the relationship between the initial ratio and the basic ratio of a mode of production,
- in the relationship between the production process and the overall process.

The relation of value as the relation of private capitals to each other is therefore treated twice in Marx's *Capital*. In the first volume of "*Capital*" it is, in its abstract essence, the initial relation from which the dialectically logical genetic representation of the entire system of capitalist relations of production and the laws of the metabolic process under these conditions is developed. The capitalist production process is a production process of commodities based on the separation between property and labor and the factual connection between property and labor.

[74]between producer and means of production (transformation of labor power into a commodity). For the analysis of the production process and the basic relationship of capital on which it is based, the treatment of the essence of the mediation relationship of production is presupposed.

The unfolded form of the relations of mediation, above all in their realization as a relation in the distribution of surplus value, is dealt with by Marx in the third volume, which bears the heading "The overall process of production". The value relation as the production relation of private producers to each other is thus on the one hand "logically" and historically presupposed to the basic relation. This cannot arise without the value relation and therefore cannot be analyzed. On the other hand, however, as a relationship of private capital, it is a relationship derived from the basic relationship, which is subordinate to the basic relationship (basic law) in terms of its nature and function.

In the political economy of socialism, the discussion on the question of a special initial relationship, which is the historical and logical precondition for the emergence and thus the analysis of the basic socialist social relationship, has not yet been concluded. Various economists are looking for it in analogy to "capital" in the essence of the mediation relation that historically precedes the basic relation, i.e. in planarity or collectivity, understood as an analog to the simple value relation of capitalism. Plannedness, defined as the nature of the communist relation of the overall process of production, unfolds in capitalism as plannedness under the rule of capital in the factory, changes into a new quality in the monopoly, until this relation produces a "planned form of capitalism" in state-monopoly capitalism, according to a statement by Lenin, in which the next step, the step beyond the state-capitalist monopoly, is called socialism (see also [LW 24: 298 f.; 25: 456]).

While the basic relation of a mode of production is usually constituted in a particular historical process using violence, the basic production relation of mediation, which belongs to the basic relation, develops in its basic features in an evolutionary process *before* the emergence of the basic relation. It is a prerequisite for the constitution of the basic relation itself and is one of the conditions that make the constitution of the new basic relation possible (and necessary). Economic-historical analysis must take into account these different processes in the emergence of new modes of production. It is clear that violence can only mean the realization of a necessity that has matured in material production (in the productive forces and the relations of production), not mere arbitrariness and coincidence.

1.2.6. The theoretical analysis of the functional mechanism of economic social systems

Political economy understands the *relations of production* as the abstract essence of a particular mode of production. The abstraction here reduces the relations of production to the basic type, the essence of the first and second order of a functional system of economic laws. For the political economy, the relations of production are therefore the qualitative constant that determines the essence throughout the entire duration of a basic relationship. From this point of view, the relations of production are regarded as relatively insensitive to the productive force for which they represent the form of movement.

However, the *realization*, i.e. the concrete implementation of the provisions of the economic laws inherent in the nature of the relations of production, is tied to the relations of distribution. According to Marx, distribution relations are the "reverse side" or the "form of realization" of the relations of production, essentially identical with them. [MEW 25: 885; 13: 626 f.] While

Whereas production relations are defined as constituted in the objective, necessary, mass mutual behavior of people in relation to the objective preconditions of production, distribution relations are constituted in the mutual behavior in relation to the objective results of production, to the products. Each production relation corresponds exactly to a distribution relation belonging to it. For example, in capitalism, the relation of production between wage labor and capital corresponds to the relation of distribution between the classes, the struggle to fix the level of wages and thus to divide the national income into the part for consumption (v) and the part for accumulation (m) (we refrain here from dividing surplus value into capital and revenue); the relations of production between private capitalist producers correspond to the struggle between the capitals for the distribution of the surplus value produced. Under socialism, the functions that under capitalism are distributed among mutually hostile social classes and forces become functions of the unified social producer as a whole.

The function of distribution relations is to realize the social essentials (laws) of production. This presupposes the realization of production, i.e. the consumption of the entire commodity product.

The relations of distribution are *no* longer relatively insensitive to the state of development of the metabolic process, on the contrary. If the productive forces, first and foremost the material-technical basis of production, are not adequate to the relations of production and property, this is (appears to be) always shown by the fact that the distribution relations corresponding to the property relations do not yet or no longer function fully. Thus, in social conditions in which the material-technical basis and property relations do not fully coincide, there is a discrepancy and mismatch between production and distribution relations, between the essential property and the realization of this essential property in reality.

The realization of the basic provisions of the economic regularity of the metabolic process is therefore not only bound to the existence of an abstract relation of production, but to the realization of the entire production and thus to reproduction. The realization of production is tied to very specific proportional conditions or equilibrium conditions of the metabolic process.

In the modes of production with socialized production, in which labour is released through technical progress, there are above all two proportional conditions that underlie the realization of production and the relations of production: firstly, the relationship between the release of labour through technical progress in the simple reproduction of the morally worn-out means of production in terms of value, and secondly, the binding of labour through accumulation, i.e. through the transformation of surplus labour into additional means of production. This equilibrium condition requires the fundamental distribution decision of dividing the national income into consumption and accumulation.

[76] The distribution relation of the basic relation (in capitalism the struggle between wage labor and capital for the division of the national income into v and m , i.e. for the fixing of the level of the wage) has as its basis the equilibrium condition between release through technical progress and binding through accumulation. The relationship between accumulation and technical progress is regulated in such a way that, as a result of accumulation, the release process leads to the growing periodic production of a relative overpopulation, to pressure on the situation of the workers, polarization of society into wealth on the one hand and misery on the other. The provisions of the Basic Law are realized.

Secondly, it is a question of the equilibrium condition between production and need, i.e. the proportionality of the branches of production. The distribution relations of the production ratio of the overall process of production (in capitalism the struggle between private capitals for the distribution of surplus value) are based on the equilibrium condition of the proportionality of production.

The distribution relations as the flip side or form of realization of the production relations and thus of the economic laws have the function of realizing the equilibrium conditions of the metabolic process with regard to the goals of production immanent to the basic law and thus also of securing the social character of production, the social form of the metabolic process. They have to ensure concrete proportionality. Distributive relations are thus the link between productive power and production relations. Their ability to function is directly linked to a certain material-technical basis and structure of the metabolic process. Their effectiveness is therefore an important indicator for assessing the historical state of development of a particular mode of production, for judging whether or not productive forces and relations of production coincide.

Marx emphasizes that the necessity of the replacement of a given system of relations of production by a new one is (appears) expressed in the fact that it becomes impossible to maintain the old relations of distribution. [MEW 25: 891] In the history of capitalism, this condition occurs in the course of the last third of the 19th century and generally forces capital to transition to new relations of distribution, which in turn are not in accordance with the capitalist basis. This is precisely the basis of Lenin's formulation of imperialism as a superstructure above normal capitalism [LW 29: 154], as a contradiction between monopoly and competition, between the abolition of the capital character of production, which causes the particularly conflict-laden character of imperialism.

1.2.7. Political economy and economic history. "Logical" and "historical" in the method of recognizing modes of production

Economic social systems (modes of production) are doubly determined in reality. On the one hand, they are self-organizing systems that must strive towards a defined equilibrium state of the system, i.e. that strive towards a very specific proportionality on the basis of the proportional conditions of the metabolic process. On the other hand, they are in a constant state of change, in a constant state of transition from one historical state to another. The objectively necessary proportions that the system is striving towards today will have already changed again by the time the state is reached tomorrow. We speak here of "floating equilibria"; the system tends to approach the state of equilibrium, but can never reach it. The theoretical, dialectical and logical description of an ecological system must therefore, on the one hand, describe the function of this system, i.e. the social way in which proportionality is striven for in a mode of production on the basis of the necessary equilibrium conditions of the metabolic process. At the same time, however, it must reveal in this movement the contradictions of the historical development and the historical decline of the mode of production. A political-economic theory can therefore only adequately reflect reality if it implies not only the simple movement (function) of the system, but also the historical development of the system and its contradictions in the function. This means that revealing the relationship between productive power and production relations, and thus between production relations and distribution relations within a property-determined form of production, is of decisive importance for political-economic analysis. Marx gave adequate theoretical expression to this dialectic in "Capital". His entire presentation reflects the unity of the "logical" and the "historical" in the *theoretical system of political economy*. This already applies to the analysis of the initial relation, value, it applies to the analysis of relative surplus value in relation to the analysis of the relationship between the basic relation and the realization of the basic relation on the basis of various stages of development of the material-technical basis, and it applies in particular to the connection between the analysis of the function, the historical tendency of this function and the necessary replacement of the private basic relation by a social basic relation in the treatment of the accumulation of capital.

The "logical" in the analysis of the modes of production is the theoretical insight that reflects the lawfulness in a systematic form. It is characterized above all by the

Ascending from the empirical-concrete to the abstract and from this again to the spiritual-concrete, which grasps reality as an ordered system of phenomena, as a totality. It includes the theoretical ("logical") moment of the historical.

The "historical" is the empirical knowledge that reflects the emergence and development of production methods over time, progressing from the empirical-concrete to the empirical-concrete or advancing from the empirical-concrete to the empirical-abstract. It includes the historical moment of the theoretical ("logical").

The unity of both methods is necessary in order to theoretically and empirically reflect the regularity of the movement and development of the modes of production. It requires the recognition of the interrelations between the "logical" and the "historical" in both political economy (as the theoretical knowledge of the modes of production) and economic history (as the empirical [historical] knowledge of the modes of production).

The theoretical representation of a system of economic laws must be such a dialectically logical one that the contradictions that constitute the historically developed and the historically passing of a mode of production are included in the analysis. The uncovering of the relationship between the relation of production and the relation of distribution, between the initial relation and the basic relation, is precisely the method of uniting the "logical" and the "historical" in theory. Theoretical analysis is a prerequisite for historical [78] concrete analysis and representation, in order to carry out the observation of empirically ascertainable facts in such a way that they are accessible to theoretical analysis. The historical method can thus be understood as the procedure for determining and representing the historical change of social modes of production and their transition in their chronological order. It analyzes the concrete historical manifestations in all their richness of coincidences, details and peculiarities. It begins with the analysis of historical conditions and progresses to the analysis of historical events. It ends with the synthesis of the corresponding knowledge as an ideal reconstruction of the overall historical process.

The study of the coming into being and passing away of modes of production is therefore not a matter of two separate methods, of which the "logical" belongs to political economy and the "historical" to economic history. Just as the political economist, in his dialectical, logically theoretical, i.e. "logical" work of reflecting a system of economic laws, must include the historical moment in his genetic representation of the processes, the economic historian must also include the theoretical analysis of the facts he observes in his observation. It goes without saying that the political economist, without being a historian at the same time, i.e. approaching his subject historically, cannot find adequate insights into the function and meaning of the laws of his subject. Conversely, the economic historian cannot uncover economic-historical facts that correctly reflect the history and the "logic" of the history of the subject matter without being a political economist and including political-economic analysis in his historical analysis. The historical method without the "logical" method is blind. The "logical" method without the historical method, on the other hand, would be meaningless.

The unity of both methods requires an examination of the necessary transition from one to the other in both scientific disciplines. However, such an analysis cannot yet be provided given the current inadequate state of the elaboration of the methodology of researching and representing social systems.

For political economy it can be said that it must prove the organization of social systems as the results of their historical development and as a necessary negation of their present state in its system of laws. For this theoretical analysis, the description of an existing state and the description of the development of this state form the "logical" precondition for the analytical penetration of a mode of production.

The uncovering of the concrete historical development of relations of production or relations of distribution and the historical-empirical reflection of essential relations (basic and overall relations of production) is a prerequisite for the "logical" uncovering of the historical context.

Political economy is therefore not only about the kind of inner "logic" in the movement, but also about the inner logic in the development of economic systems. Every theoretical analysis of economic systems must therefore constantly move from the "historical" to the internal to conclude "logic". Conversely, however, it must constantly go back from the "logical" to the "historical". On the one hand, political economic analysis makes time variable and assumes the invariance of the system elements and their function. It treats the self-organization of economic systems as a contradictory realization of dynamic equilibrium states on the

[79] The basis of the internal interactions of social production. However, economics must understand this realization of dynamic equilibrium states of economic systems as a process of the emergence of the new from the old and the development from the lower to the higher as the main content of social development. Thus, in addition to the lawful function, the historical development arising from this function must be derived. This presupposes the theoretical mastery of the interrelation of productive forces and relations of production *within* a property-determined mode of production, and this in turn presupposes the mastery of the interrelation of relations of production and distribution.

For economic history, this also means the necessity of examining the transitions from one method to another in its science. To ensure that historical investigation does not proceed blindly, it must first take the theoretical results of political economy or historical materialism, which enable the application of the historical method, as a starting point and must draw conclusions from the states it analyzes to processes whose description is carried out using the historical method. The evolution of social systems is therefore to be understood as the mediation of different "logical" states of social systems. The more comprehensive, precise and general the political-economic knowledge of economic systems and their various types of function is, the more precisely economic history can capture evolution with the help of its historical method. A more precise understanding of evolution is in turn a more precise basis for analyzing the functions and contradictions of function in any given economic system.

If economic history does not want to get stuck in mere description, it must move from the description of the changes to the empirical analysis of the changes, and this on the basis of knowledge of the "logical" function of the changing systems. Conversely, it must include the historical-genetic description of the interrelationships in its analysis when determining changes. Lenin's analysis of the transition from capitalism to imperialism is a prime example of such a transition from the "logical" to the "historical" and from the "historical" to the "logical" method within the determination of a historical transition.

The aim of the scientific development of political economy and economic history is undoubtedly to establish, alongside the political-economic theory of the function of economic systems and the unity of the "logical" and the "historical" in a qualitatively well-defined system of laws, a political-economic theory of development and the qualitative changes in economic systems, which allows future qualitative changes in the social development process to be recorded and predicted precisely and in good time. Then it will fulfill its function of reflecting the objective laws of development and being an instrument of the class politics of the proletariat even better.

Literature:

- 1 *Haug, W. F.*: Vorlesungen zur Einführung ins "Kapital". Cologne 1974; 2. *Tuchscheerer, W.*: Bevor "Das Kapital" came into being. Berlin 1973; 3. *Wygodski, W. S.*: How "Das Kapital" came into being. Berlin 1976;
- 4 *Zelený, J.*: The logic of science in Marx and "Das Kapital". Berlin 1968.

Hans Wagner

[80]

1.3. Special areas of economic history

1.3.1. Agricultural history

In most European countries, independent agricultural historiography emerged during the period of transition from the economic social formation of feudalism to that of capitalism. The profound social changes of this period, which included the advancement of agricultural productivity and the agrarian revolution, undoubtedly promoted the need for agrarian historical information. Farmers, pastors, economic writers ("Hausväterliteratur") and other intellectuals dealt with agricultural issues from a historical perspective and published essays and books.

In the last decades of the 18th century, the cameralists in Germany turned their attention to agriculture and new production methods. In this context, they also dealt with the negative effects of outdated socio-economic conditions in the village. As this could only be done from a historical point of view, their explanations awakened an understanding of the history of agriculture and provided important groundwork for the emergence of agricultural history as an independent scientific discipline.

German agricultural historiography did not begin with the study of a specific subject, which would have led to a monograph, but rather an overall presentation. As this was constantly imitated, a firm tradition developed. In addition, an increasing number of essays and treatises were written, which provided important preliminary work for the overall presentations.

The first history of German agriculture written according to scientific principles appeared between 1799 and 1802 in three volumes, written by the Görlitz councillor and landowner *Karl Gottlob von Anton* (1751-1818). [1] He was the typical private scholar of the Enlightenment period, dealing with historical, legal, philological and agricultural topics. For his agricultural history, which covered the period from primitive society to the middle of the 14th century, he studied over a thousand mostly Latin source publications and accounts. Since historical scholarship had not yet developed the critical and comparative analysis of sources, *Anton* accepted some misinformation from his extensive source studies, but in general he processed his sources and the literature critically, so that the first German agrarian history certainly corresponded to the state of historical scholarship at the time. [12]

A few years after the publication of *Anton's* work, the physician and [81] agricultural scientist *Albrecht Daniel Thaer* (1752-1828), who played a major role in the emergence of German agricultural science, published a "Grundriß einer Geschichte des Ackerbaues" (Outline of a History of Agriculture). [24] *Thaer* considered a lecture on the history of agriculture to be essential as an introduction in order to make the theory of agriculture comprehensible. To this end, he wrote his Grundriß in 1807, which contained the most important ideas of an intended agricultural history lecture. [14] *Thaer* stated the following as the purpose of a history of agriculture: "It gives a general overview of the whole. It shows the relationships and points of contact between agriculture and the culture of the human race, and how it necessarily had to be. It teaches to know and appreciate the theory and practice of every age and every nation, and shows not only how it was, but also *why* it was so, and what it brought about." [24: 2 f.]

However, *Thaer* lacked the scientific tools to realize this far-reaching objective in his ground plan. It was not until the second half of the 18th century that he had a broader knowledge of the subject, which was particularly evident in his description of the state of agriculture and the agricultural literature of the time. [24: 32 ff.]

Anton can therefore be credited with having a broader view of the subject of agricultural history, while *Thaer* had a greater theoretical understanding and recognized the tasks of agricultural history better.

In 1847, *Christian Eduard Langethal* (1806-1878), who taught botany and plant cultivation at the agricultural institute of Jena University, published the first volume of his "Geschichte der deutschen Landwirthschaft" (History of German Agriculture), which was followed by a further three volumes up to 1856. [18] It gives a complete account of agriculture under feudalism, which the author described as the basis of the entire social life of this formation. [18: Vol. 1, III]

Langethal's comprehensive and thorough treatment of agriculture covered the need for an overall presentation for a longer period of time. Before a new summary could be considered, further detailed research had to be carried out. These took into account legal, economic, production, social and political conditions to varying degrees and were influenced by the various schools of historiography, such as the historical school of law and the historical school.

After 25 years of teaching agricultural history at the universities of Königsberg, Jena and Bonn, *van der Goltz* (1836-1905), who was already a well-known agricultural economist and teacher of business administration, published a two-volume "History of German Agriculture" in 1902/03. [9] *Goltz* was the first author to take his project directly into the period in which he himself lived.

He considered the main areas of agrarian history to be "the history of the *agricultural enterprise as well as the rural population* and the most important *agrarian legal* conditions" [9: vol. 1, IV]. *Goltz* thus followed the threefold division of agrarian history into a history of production, social conditions and agrarian constitution that was already common in research. But he saw a history of agriculture conceived in this way in close connection with the history of the German people in general and included the general soil, climate, transportation and population conditions in his account, whereby his agrarian-economic approach becomes particularly clear in his treatment of the 19th century.

There were no significant differences between *Goltz* and *Langethal* in their understanding of the subject matter of agricultural history. What was new was the tripartite division of the subject matter. [82] In line with the progress of historical science and agricultural history research, *Goltz* provided more recent information and often more well-founded assessments, but also misjudgments that corresponded to the reactionary views of German imperialism.

In the 1930s, two further comprehensive accounts of agricultural history were published, which differed considerably from the previous ones in their treatment of the subject. In 1937, *Friedrich Lütge* published a "History of German Agriculture in the Middle Ages" from the manuscript left behind by the historian *Georg von Below* (1858-1927). [4] *Below* was a thorough user of the sources, but he evaluated them almost exclusively for the constitutional side of agricultural history. *Below's* agrarian constitutional history of the Middle Ages did not do away with the older accounts by *Anton*, *Langethal* and *Goltz*, which provide much better information about farming and the social situation of the peasants. At the other extreme was the "History of German Agriculture" by the business economist *Richard Krzymowski* (1875-1960). *Krzymowski* taught agricultural history at various agricultural faculties for decades and first published his lectures in expanded form in 1939. [17] He mainly dealt with the development of agricultural production up to the outbreak of the Second World War. The other two areas of agricultural history, social conditions and the agrarian constitution, were presented more sketchily.

Since neither *Below* nor *Krzymowski* had taken sufficient account of the more recent state of research and their one-sided approach was not satisfactory, the task of writing an overall account of the history of agriculture remained. Leading economic and agricultural historians of the FRG joined forces and wrote a five-volume German agricultural history, the first volume of which was published in 1962. [28] Even in terms of personnel, there were significant differences compared to the earlier comprehensive accounts. *Thaer*, *Langethal*, *Goltz* and *Krzymowski* dealt with agricultural history as agricultural scientists, which led to a broad representation of science and production. The authors of the most recent complete account are social scientists,

which deal with social and political problems in greater detail. In addition, the division of the material between the individual authors created new problems. While the first volume deals with early agriculture and the last with modern agriculture, with the material being organized chronologically, the three middle volumes, in which the agrarian development of feudalism is presented, are organized according to subject matter. The structure corresponds to the scheme already found in *Goltz*: agricultural production, agrarian constitution and rural population. The independence of these three areas of agrarian history led to each of the authors of the feudal period treating their subject matter in a correspondingly broad manner and to many overlaps, which have their deeper cause in conceptual deficiencies. Thus, the overall course of agrarian development is not always understood as a historical sub-process of the history of the German people, the dialectical interrelationships between productive forces and production relations are insufficiently taken into account, and the role of class struggle is underestimated.

The comprehensive accounts of German agricultural history, which have grown out of more than 150 years of research, show better than any monograph how the subject matter of agricultural history has become ever broader. The increasing inclusion of other areas in the subject of agrarian history, which inevitably resulted from the laws of knowledge acquisition, led to the development of the aforementioned specialized disciplines, such as the history of agricultural production, [83] the agrarian constitution and the rural population. These three areas of agricultural history deal with the economic, political and social aspects of agriculture. However, the sub-areas are not congruent with the three fundamental aspects.

The specialized disciplines of agricultural history currently only have their justification in research. The narrowing of the subject matter only allowed an in-depth analysis on a broad source basis. This made it possible to make reliable judgments on a number of problems and processes. The requirements are completely different in the teaching of agricultural history and in the general presentations that instruct a wider audience. The aim here is to present a unified development process, the fundamental aspects of which must be dealt with, but which cannot be broken down into sub-areas.

At present, the history of agricultural production is concerned with the objective and subjective conditions of production, such as natural conditions, population development, the means of production and agricultural buildings, the labor force, work experience and the state of science and education. The production process itself is of particular importance. This concerns the individual branches of production, such as arable farming and livestock farming, and the special branches, such as horticulture, field vegetable growing, fruit growing and viticulture, as well as their combination and organization. The further processing of agricultural products, such as milling, distilling, brewing, sugar beet processing and the various types of crop drying, is also part of production. The results of the production process are recorded with the help of economic indicators such as gross and market production, labor input and labor productivity, per capita production and per capita food availability as well as prices. Since the latter indicators already extend into the area of the food industry, it is necessary to include trade in agricultural products, imports and exports, warehousing and the food supply of the population in the study. Also closely related to production are the insurance, taxation, credit and cooperative systems and the variety of state measures to promote and regulate the agricultural and food industry. Although the history of agricultural production focuses on the development of the productive forces, it goes far beyond this.

The history of the agrarian constitution deals with the legal conditions that existed in the agricultural economy or in the village and the state measures in this area. This includes land ownership and the constitution of the land, the personal position of the producer in the production process and his relationship to the means of production, the forms of appropriation of the land, and the legal status of the land.

surplus value and the oppression of the working people in class society, the forms of rule in the countryside and the forms of organization of the peasants. However, the dialectics of these components of the agrarian constitution can only be understood if they are understood from the field of tension between economic development and class antagonisms and class struggles. Bourgeois legal history has mostly failed to do this and has remained stuck with a description of legal states whose changes it could only explain imperfectly.

Although the history of the agrarian constitution focuses on the development of production relations, it goes beyond this. In the social formations determined by agriculture, especially in feudalism and in the agrarian states of capitalism, the agrarian constitution is largely identical [84] with the social constitution. The class relations of agriculture are the decisive class relations of the whole state. The mode of appropriation of the surplus product in agriculture determines the form of exploitation in society. The land is the economic basis of the political power of the ruling class. Therefore, such institutions of agrarian constitution as landlordship and manorial lordship as well as village commune and market cooperative are not one-sided agricultural phenomena. They left their mark on an entire social formation. The process of feudalization of the peasants was identical with the general transition to the economic social formation of feudalism, and the agrarian reforms marked its end.

The history of the rural population is concerned with their social situation and their political activities. This includes the social structure, the socio-economic situation and the degree of exploitation, the way of working and living, the level of education and culture, the forms of settlement and the peasant house, the secondary occupations of the peasants, the ideology and the class antagonisms and class struggles as well as the agrarian theoretical and agrarian political concepts and programs of the political parties and agrarian interest groups, whereby each of the objects listed already comprises a complex of social processes. In their entirety, they are determined by the development of production and the agrarian constitution, whereby the relationships are reciprocal.

For centuries, class antagonisms and class struggles had the greatest significance for the history of the rural population. All changes in legal relations were determined by the dialectic of class antagonisms and class struggle. This affected the dissolution of the villenation constitution as well as the development of the second serfdom and manorial rule in the East and local serfdom in the West. Even the course of the agrarian reforms of the 19th century cannot be understood if the resistance of the rural population to the outdated feudal system is not taken into account.

Class antagonism and class struggle not only determined the organization of the agrarian constitution. They had a great influence on the situation of the peasants and the concrete organization of the production process. The disputes between the peasants and their feudal lords were about land ownership, the payment of taxes in kind, servitude and interest on money, the extent of state taxes, the use of the fields and common property and the rights of the peasant communal bodies, which also had a regulating function in production. In the

In the 19th and 20th centuries, the focus shifted to the abolition of outdated landlord rights, the effects of state agricultural policy and the agrarian crises. The demand for democratic land reform became ever stronger.

Agricultural history cannot be understood without sufficient consideration of class antagonisms and class struggles. Even the bourgeois authors of the overall accounts of agrarian history discussed here understood this. Before historiography discovered the historical categories of "class" and "class struggle", *Anton* described the class antagonisms and class struggles in the period of the enforcement and consolidation of the feudal mode of production in the first comprehensive account of agricultural history, without using these terms. All other general accounts followed *Anton's* example. But in general, these authors did not recognize how deeply class antagonism and class struggle shaped agrarian history.

Only Marxist agrarian history took this step and arrived at more well-founded judgments and new insights.

[85] The breadth of the subject matter of agricultural history means that various scientific disciplines are involved in its study and that the agricultural historian must be familiar with the working methods of different disciplines. The treatment of prehistoric and protohistoric agriculture already falls completely outside the scope of agricultural history. This is a matter for archaeologists, botanists, zoologists, ethnologists, linguists and prehistorians. In addition to the agricultural historian, the later periods explore historical demography, agricultural geography and settlement studies, the history of law, constitutional history, the study of names, ethnology and ethnography, general history, economic history and the history of the natural sciences. In an overall presentation of agricultural history, the agricultural historian must draw on the results of these sciences. Scientists from different disciplines often take part in the increasingly complex international study of small-scale landscapes. The integration of different disciplines is an effective way of arriving at a comprehensive result quickly.

German agricultural historiography conceived its subject matter in contact with the agricultural historiography of other countries. For this reason, the subject of agricultural history is not a national, but an international phenomenon. In addition, in the methodological field

In the 20th century, the decisive advances came from other countries, such as the USA (quantitative approach, mathematical-statistical methods), France (complex investigation of small-scale agricultural landscapes) and the Soviet Union (Marxist-Leninist interpretation of sources).

In order to gain an overview of agricultural history research in Europe, in 1964 *E. L. Jones* and, in 1967/68, *E. J. T. Collins* from the University of Reading in Great Britain visited various agricultural history institutes. They visited Groningen, Wageningen, Stuttgart-Hohenheim and the library of the FAO in Rome. They also had the opportunity to speak with *P. Gunst* of the Agricultural Museum in Budapest, the deserving editor of the "Bibliographia Historiae Rerum Rusticarum Internationalis", and with *Axel Steensberg*, the director of the Copenhagen International Secretariat for Agricultural Equipment Research. [7] They summarized their impressions as follows: "First of all, the most important difference seems to be that in Europe a large part of the research takes place in special institutes, not in the normal university seminars. Secondly, such institutes are associated with universities with strong agricultural faculties (e.g. Wageningen, Groningen and Stuttgart-Hohenheim) or with national agricultural museums (e.g. in Prague and Budapest). The European research interest seems to focus mainly on agricultural structures, agricultural policy, land reform and the morphology of the agricultural landscape. In contrast to this, British research, however diverse it may be, is primarily concerned with the economics and technology of agricultural forms of production and estate management.

Characteristic of the current situation in Europe is the growing tendency to set up organizations that are, on the one hand, research and documentation centers and, on the other, reference points for ongoing work in the respective research field. We were particularly impressed by how carefully the institutes we visited followed the development of international research, which was reflected in the wide geographical spread of the library holdings." [7: 66 f.]

England had a remarkable tradition of agricultural history research. However, between the two world wars there was a considerable decline. It was only [86] **after** the severe war damage had been overcome that a new upswing began. In 1951, the "Museum of English Country Life" was founded at Reading University and agricultural history research was carried out on a broader basis. It was mainly American and French influences that led to the use of statistical methods in English agricultural historiography. The "Society for British Agricultural History" was founded in 1953. In the mid-1950s, British agricultural historians agreed to publish a multi-volume English agricultural history.

encyclopaedic character [7: 62 f.], the first volume of which, covering the period from 1500 to 1640, was published in 1967 [31].

The method developed by *Marc Bloch* before the Second World War of combining the results of the study of sources with the study of the modern agricultural landscape and the cadastre had a great influence on French agricultural historiography. [5] This method contributed to the development of a fruitful cooperation between agrarian history and agrarian geography in France, and not only there, which led to a complex study of small-scale agrarian landscapes. [8: 230 f.] The studies on population development and rural social structure carried out primarily by the "Institut National d'Études démographiques" provided new insights for agricultural history. The "Annales de Démographie historique", published since 1965, very quickly developed into an international publication.

Farming and viticulture have long been an important subject of historical research in Switzerland. The Swiss Farmers' Secretariat in Brugg, which publishes a wealth of statistical material and historical research in the form of annual journals, deserves special mention. In addition to a large number of special articles, a number of larger works have also been published which provide an overview of the development of farming, viticulture and farming customs. [10]

The Netherlands gained a strong position in the historiography of agriculture in Western Europe. Even before the Second World War, Dutch agricultural historians and those interested in agricultural history came together to form an association, "De studiekkring voor de geschiedenis van de Land- bouw", which publishes articles on agricultural history. [27] In 1950, the first Institute for Agricultural History was founded in Groningen, whose work was financed by various agricultural organizations. This institute deals with the edition of sources and bibliographies. [3] The Department of Agricultural History, established in 1952 at the Agricultural College in Wageningen and headed by *Slicher van Bath*, became the center of agricultural history research. Here, both the economic-social and the agricultural-technical aspects of agricultural history are studied. [2: 69] *Slicher van Bath* is also the author of a book that has since become a standard work of agricultural history (*De agrarische geschiedenis van West-Europa*) and covers the period from 500 to 1850. [3]

A special feature of Danish agricultural history research is its focus on pre- and protohistoric agriculture. *Gudmund Hatt* and *Axel Steensberg* were pioneers in this field. As Denmark has a unique collection of old plows and the scientists there have a great deal of experience in researching tools, the

"International Secretariat for Research on the History of Agricultural Implements" was established. In their research, the Danish scientists applied the latest scientific and technical methods at an early stage. These included aerial photography, which made it possible to reconstruct early landforms. Even bog bodies were examined [87] in order to be able to analyze prehistoric foodstuffs via the contents of the digestive organs. [26: 76 f.]

Great importance is attached to agricultural history research in the socialist countries. On the one hand, the working peasants are the most important allies of the working class and their revolutionary traditions are part of the political heritage of the entire nation, and on the other hand, it was predominantly agrarian countries that embarked on the road to socialism. In the People's Republic of Poland, the various peasant uprisings in feudal times have been very thoroughly researched. But the history of the productive forces and the peasant economy was also studied. [19: 157, 173] In more recent times, research on social structure has been resumed, including the social structure of the village and the process of differentiation of the peasantry in the 19th and 20th centuries [25: 221 f.].

In the last ten years in particular, Hungarian agricultural history research has produced a wealth of individual studies and summaries, most of which are written from an agro-economic perspective. [22: 197 ff., 205 ff.] With the help of comparative methods on the

In the field of productivity development and the comparison between agricultural and industrial processes, Hungarian agricultural history research gained significant new insights.
[15] [21] [23]

Three centers for agricultural history research emerged in the GDR, around which historians and archivists working in other scientific institutions and schools gather when they are working on agricultural history. The Institute of Agricultural History of the Academy of Agricultural Sciences deals with socialist agriculture in the GDR, the Department of Agricultural History of the Institute of Economic History of the Academy of Sciences with German agricultural history under capitalism and the Agricultural History Research Group of the History Section of the Wilhelm Pieck University in Rostock with feudal agriculture. The research spectrum is extraordinarily broad and encompasses all three major areas of agricultural history. [29] [30] Recently, in line with the international trend, some remarkable analyses of rural social and population structure, production structure in relation to social structure and economic analyses have been carried out with the aid of the most modern mathematical methods.

Soviet agricultural history research has a leading position. It not only has the greatest research capacity within the socialist countries, but also the longest experience in the application of the dialectical materialist method. The number of available books and articles is immense and not always easy to keep track of (dispersion of researchers in a huge territory, variety of publication possibilities). Through the reorganization of historical research in problem councils since the mid-1950s, agricultural history research was more strongly integrated into the remit of historical science.
[6: 228 f.] Thus

z. For example, in connection with the study of the genesis of capitalism, extensive research was carried out on the social structure of the village and the social mobility of the peasantry.

[20] Agricultural history research was also the specialist historical discipline that applied mathematical-statistical methods and used electronic data processing the earliest and still does so today. Considerable research results were already presented at the XIII International Congress of Historians in Moscow in 1970. [20: 233] In the meantime, further experience has been gained and a wide variety of source material has been analyzed electronically. [13] [16] The experience gained in this way is of great [88] value for agricultural history research in the socialist countries, and many successful attempts have been made in these countries themselves to rationalize the research process with the help of mainframe computers and their successors and to gain insights that are difficult to obtain using conventional methods. Even maps of population density and social structure were produced electronically and electromechanically (Hungarian PR).

Literature:

- 1 *Anton, K. G. von*: Die Geschichte der deutschen Landwirthschaft. 3 parts, Görlitz 1799-1802; 2. *Bath, S. van*, in: ZAA 1960, p. 68 ff.; 3. *Ders.*: De agrarische geschiedenis van West-Europa (500-1850). Utrecht/Antwerp 1960; 4. *Below, G. von*: Geschichte der deutschen Landwirtschaft des Mittelalters. Jena 1937; 5. *Bloch, M.*: Les caractères originaux de l'histoire rurale française. Paris 1931, t. II, Paris 1956 (supplementary volume with previously published essays); 6. *Čistozvonov, A. N.*, in: JWG 1973, T. III, p. 225 ff.; 7. *Collins, E. J. T./Jones, E. L.*, in: ZAA 1970, p. 62 ff.; 8. *Duby, G.*, in: ZAA 1961, p. 230 ff.; 9. *Goltz, Th. Freiherr v. d.*: Geschichte der deutschen Landwirtschaft. 2 Bde., Stuttgart/Berlin 1902/03; 10. *Hauser, A.*, in: ZAA 1962, p. 93 ff.; 11. *Heitz, G.*, in: ZfG, Sonderheft 1960, p. 116 ff.; 12. *Jecht, R.*, in: Neues Lausitzisches Magazin. Vol. 94, Görlitz 1918, p. 205 ff.; 13. *Kahk, J./Tarvel, E.*, in: JWG 1974, T. II, p. 133 ff.; 14. *Klemm, V.*, in: JWG 1975, T. I, p. 121 ff.; 15. *Kolossa, T.*, in: JWG 1972, T. III, p. 179 ff.; 16. *Koval'čenko, I. D./Selunskaja, N. V.*, in: JWG 1972, T. IV, p. 11 ff.; 17. *Krzymowski, R.*: Geschichte der deutschen Landwirtschaft. Berlin 1961; 18. *Langenthal, Ch. E.*: Geschichte der deutschen Landwirthschaft. 4 Bücher, Jena 1847-1856; 19. *Maas, W.*, in: ZAA 1956, p. 156 ff.; 20. *Mironov, B. N.*, in: JWG 1976, T. IV, p. 193 ff.; 21. *Niederhauser, E.*, in: JWG 1972, T. IV, p. 211 ff.; 22. *Ders.* in: JWG 1975, T. III, p. 195 ff.; 23. *Puskás, J.*, in: JWG 1972, T. I, p. 229 ff.; 24. *Thaer, A. D.*, in: Annalen des Ackerbaus. Vol. 5, Berlin 1807, p. 1

25. *Tomaszewski, J.*, in: JWG 1975, T. III, p. 217 ff.; 26. *Wührer, K.*, in: ZAA 1957, p. 76 ff.; 27. *Agronomisch-historische Bijdragen*. Vol. 1, 1948 ff.; 28. *Deutsche Agrargeschichte*, ed. by G. Franz. Vol. 1: Jankuhn H.: Prehistory and early history. Stuttgart 1969. vol. 2: Abel, W.: Geschichte der deutschen Landwirtschaft. Stuttgart 1967. vol. 3: Lütge, F.: Geschichte der deutschen Agrarverfassung. Stuttgart 1967. vol. 4: Franz, G.: Geschichte des Bauernstandes. Stuttgart 1976. vol. 5: Haus- hofer, H.: Die Landwirtschaft im technischen Zeitalter. Stuttgart 1970; 29. *Forschungen zur Agrar- geschichte*, in: ZfG, Sonderband 1970, p. 121 ff.; 30. *Historia agriculturae*. Vol. 1, 1953 ff.; 31. *The Agrarian History of England and Wales*. Vol. IV: 1500-1640, ed. by J. Thirsk, London 1967.

Rudolf Berthold

1.3.2. Financial history

Financial history examines the financial preconditions and effects of the production, circulation, distribution and consumption of goods that develop within the framework of historical modes of production.

From the very beginning, financial history was closely linked to political economy, especially its specialty, financial economics, and economic history. A narrow specialization developed in the history of public finance, banking and monetary history.

The *emergence of financial history* can be **traced** back to the time when the transition from the natural to the monetary economy and commodity-money relations became the subject of economic thought, a point in time that coincides with the emergence and development of the commodity economy. Recommendations for the design of financial relationships, e.g. taxes, were derived from historical-critical observations. The interlocking of financial theory and history remained typical into the 20th century. With the emergence of manufacturing capitalism in the 16th century, geographical discoveries and the expansion of trade, early bourgeois approaches to a theoretical explanation of the circulation process and demands for the adaptation of the coinage economy to the new conditions developed. Monetarism, which saw money as wealth per se, investigated changes in the value of money. *Bodin* (1530-1596) attributed the devaluation to the penetration of large quantities of precious metals into circulation, to the debasement of coins by the princes, to their parasitic consumption and, as the first economist, also to obstacles in production. [4]

The period from the 17th to the mid-18th century was characterized economically by the further development of manufacturing capitalism and politically by absolutism. The intensification of the commodity-money economy, the princes' growing need for money for wars and parasitic consumption brought about changes in the banking and credit system, so that bourgeois economists raised the question of the conditions under which wealth was produced. Thus, alongside the *cameralistic theory of finance and taxation*, the bourgeois economic theory of manufacturing capitalism, *mercantilism*, emerged, especially in England (*Mun*) and Germany (*von Justi*). Financial history was embedded in studies of the exchange and production of goods. *Justi* (1705- 1771) deserves special mention. [24] His recommendations on financial economics were preceded by a treatise on the connections between public works and finance in ancient Egypt, finance in ancient Rome and the connections between trade and finance in Europe.

Based on the classical bourgeois economics of developed manufactory capitalism, above all on *Smith's* theory, *von Jakob* derived the *history of state finances* in Germany at the beginning of the 19th century from the development of states since antiquity and from the growing financial needs of the state. [23] He saw increasing wars, standing armies, but also the emergence of world trade and the world market as the main factors behind the rise in customs duties, excise duties, taxes and levies.

The main subject of *bourgeois financial history under free competition capitalism and imperialism* is the relationship between the state and the economy and the financing of economic growth. A great deal of space is devoted to empirical studies of the quantitative and qualitative

Changes in state budgets. Structural changes associated with the assumption of new functions by the bourgeois *state budget* and the development of state-monopolistic capitalism are noted. The observation that a "transition from the entrepreneurial state to the tax state" took place in the 19th century reflects the capitalism of free competition, which is characterized by a certain liberalization of economic life. The design of the tax system is the focus of numerous treatises. In the 1980s, *Wagner* (1835-1917), a representative of so-called state socialism, established his law of growing state needs. [53] He thus predicted an increase in state expenditure, which actually occurred as a result of state-monopoly budget financing, which arose by law from the capitalist reproduction process. To this [90] day, this phenomenon has prompted bourgeois authors in various countries to deal with *Wagner*. Another structural change discovered by bourgeois financial historians was a tendency towards the centralization of income and expenditure. This so-called Popitz's law of the attraction of the superior budget takes into account the expansion of the central state budget, which is also attributed by bourgeois authors to armaments and war costs, among other things. However, they pay too little attention to the fact that numerous functions that are necessary to maintain the social reproduction process of capital under imperialism have to be carried out by the municipalities, whose debt burden is growing as a result. The tendency towards centralization came to the attention of bourgeois financial historians in Germany after the First World War.

After the Second World War, bourgeois authors [57] attributed functional changes in the state budget primarily to urbanization, war financing and the financial effects of the two world wars. From the point of view of domestic policy, *Witt* wrote an instructive work [54] in which the relationship between politics and economics is presented in the mirror of state finances in the early stages of imperialism. Studies on the regulating effect of state financial measures were strongly influenced by neo-Keynesianism and remained predominantly the subject of financial theory [19] [32] [39], but also found their way into financial history, e.g. in the Federal Republic of Germany at the end of the 1960s.

Quantitative methods, which were developed in the 1920s and especially after the Second World War in bourgeois national accounting, and borrowings from stadial growth theories, which are strongly rooted in the bourgeois theory of industrial society, characterized the observation of long periods of financial history in the 1960s. There is an assessment of this from a Marxist perspective. [28] Driven by the national liberation struggles of colonial and dependent countries and the collapse of the imperialist colonial system, international comparisons were made in order to understand the relationship between the level of economic development and financial state activity. [21] [41]

To this day, a predominantly isolating view of public finance remains typical, as *Kaemmel* has pointed out. [25] This is seen as independent of the financing of economic development by banks, insurance companies, etc. and of the self-financing of capitalist companies.

The bourgeois *history of banking* [48] is dominated by accounts of the structure of the banking system in which the division of labor between banks of different legal and ownership forms, cooperation with the central bank and banking legislation are given broad scope. Problems arising from the concentration process of capital and monopolization play a subordinate role. [55] [56] [57] The history of banking by *Krasensky* [26], in which he describes the history from the beginnings to the present, is remarkable for its consideration of numerous economic influences on banking capital. The provision of financial resources and the influence of banks on the money and credit market in the 19th and 20th centuries was another important topic of bourgeois banking historiography. The work by *Liefmann* [30], written at the beginning of the 20th century, and more recently the works by *Gehr* [17] and *Eistert* [14] are worth mentioning here. Comparative methods have also been used here. [9]

Histories of individual banks and banking centers or biographies of bankers sometimes provide rich facts; for the most part, these are apologetic anniversary writings without scientific value. [45] Interesting material on monetary policy is contained in central bank histories of various countries. [15] [12] [31] [10] [471] [1] For bourgeois German financial history, the work by *Stucken* [49], which has gone through repeated editions since the 1930s, remains a factually interesting overview of monetary and credit policy. It contains a number of untenable political assessments which, for example, ignore the monopoly capitalist basis of fascist financial policy and diminish its scientific significance.

In the 1960s, the imperialist and reformist historiography of the FRG increasingly turned to the history of the Weimar Republic, where currency problems, Reichsbank policy and reparations were the focus of party-political disputes. In the FRG, too, they are seen primarily from the point of view of political development; *Hardach* [20] brings new economic aspects. International problems of the capitalist world economy, such as integration and multinational corporations, but above all the chronic currency crisis, have led to the analysis of international monetary systems in recent years [50] [60].

In conclusion to this overview, reference must be made to the sections on financial history in bourgeois economic-historical general accounts [27] [3].

The foundation of *Marxist financial history* was laid by *Marx* at the same time as the elaboration of the political economy of the proletariat. The principle he applied of the unity of the logical and the historical led to fundamental assessments of the development of financial history. By starting from the connection between the processes of production and circulation, he developed a scientific theory and history of money for the first time. [MGr] [MEW 23] He derived money from the social division of labor and the production of commodities and demonstrated that the functions of money (measure of value, means of circulation, means of treasury formation, means of payment, world money) have developed historically in the course of the modes of production. According to *Marx*, commodity production and developed commodity circulation form the historical preconditions of capital and the conditions for the transformation of money and capital. "World trade and the world market opened the modern history of capital in the 16th century." [MEW 23: 161] He demonstrated the significance of the historical forms of capital (merchant and usury capital) for the genesis of the capitalist mode of production. The existence and development of merchant and usury capital were preconditions for the destruction of pre-capitalist modes of production and the emergence of capitalism by concentrating financial assets. Merchant capital was a prerequisite for capitalist commodity production and circulation.

Marx's historical examination of the capitalist circulation of commodities led him to make assessments about the role of banks and credit in capitalist development, which he substantiates with many examples, especially from the history of the Bank of England. The historical tendencies of the capitalist mode of production in general are reflected in the history of capitalist banking and credit: "Credit therefore accelerates the material development of the productive forces and the creation of the world market, which, as the material basis of the new form of production, it is the historical task of the capitalist mode of production to establish to a certain degree. At the same time, credit accelerates the violent outbreaks of this contradiction, the crises, and thus the elements of the dissolution of the old mode of production." [MEW 25: 457]

Marx and *Engels* ingeniously uncovered the class nature of the state and applied this insight to the study of taxes and government bonds, of [92] protective tariffs and export premiums as instruments of protectionism and to the relationship between central banks and the state, thus laying the foundations for a Marxist history of state finance. For the development of financial history as a discipline, the uncovering of the connections between state finance and the capitalist reproduction process is of fundamental importance right up to the present day.

Lenin's analysis of imperialism [LW 22: 189 ff.] provided a major impetus for the further development of financial historiography. He examined the concentration of the banking system and the role of banks in the process of monopolization on the basis of rich factual material. *Lenin* recognized the emergence of banking monopolies as "one of the basic processes of the growth of capitalism into capitalist imperialism" [LW 22: 214].

He identified the fusion of industrial and banking capital to form finance capital as a further basic feature of imperialism. He was able to rely on *Hilferding* [22] for this. From his analysis of historical facts, *Lenin* gained the important insight that the export of capital is particularly important in imperialism. These basic features of financial-historical development, which he uncovered, form the basis for the struggle of the monopoly associations for the division and redivision of the world and for imperialist wars. *Lenin's* merit for the history of finance lies not least in the scientific proof that imperialist war is rooted in imperialist economics. He thus uncovered the causes of armament and war financing, an essential function of the imperialist state budget, and the decisive factor for the financial plundering of the working people through the state redistribution of national income in favor of the armament monopolies.

Marxist financial history in the epoch of transition from capitalism to socialism faces two essential tasks: to provide the proletariat with theoretical weapons by analyzing imperialist financial relations and to write the financial history of socialist construction. The First World War provided the impetus for further research into imperialist financial relations. It had enormously accelerated the redistribution of national income through the imperialist state budget and intensified the contradictions of international financial relations. The capitalist currency had fallen into crisis.

A very early contemporary analysis was written by *Varga* [52] in the years 1914-1917. This work on money already took into account the influences of the First World War on the currency.

In the 1920s, Marxist writers published numerous articles on contemporary history, in which the proletariat took a stand against the shifting of the financial burdens of the world war and against the additional exploitation of working people through inflation.

After the Second World War, several works by *Bregel* [6] [7] appeared in the USSR, in which a theoretical analysis of banks and credit, the state budget and the currency was carried out on the basis of the financial history of monopoly capitalism. The work of *Trachtenberg* [51] should also be emphasized. This Soviet researcher dealt with capitalist monetary crises from a Marxist perspective. *Perlo* [43] made an outstanding contribution to the theory and practice of the class struggle of the proletariat with his anatomy of American finance capital.

On the basis of the Marxist political economy of capitalism and not least the Soviet publications cited, the 1950s and 1960s [93] brought a wealth of monographs on problems of economic history in the GDR, some of which contain sections on financial history, but some of which can also be classified entirely within financial history. [59] Among the contributions to banking history, the works by *Radandt* on Deutsche Bank [44] [45] and by *Gossweiler* [18] stand out; the works by *Merkel* [37] and *Säuberlich* [46] on big bank capital in the world economic crisis are worth mentioning. The development of state banks in the Federal Republic of Germany was recorded by *Burg* [8]. The works of *J. Kuczynski* contain fundamental references to the development of the state budget from the point of view of the redistribution of national income in favor of the armaments monopolies. In general, the rearmament of the FRG and the resurgence of the West German armaments monopolies became the current occasion in financial-historical works to shed light on the connections between the state budget and armaments, as *Andexel* did for the First and Second World Wars and numerous other economic historians [2] [59].

The works of *Lemnitz* [29] and *Lungwitz* [33] are specifically dedicated to the questions of the state budget of the FRG and its development. For research into financial history, the

Lungwitz's work provided methodological inspiration. The intensification of the general crisis of capitalism and the intertwining of general and cyclical crisis phenomena in the 1970s brought the issues of capitalist currency more into the focus of Marxist researchers. The results were reflected in articles on inflation, which also took into account developments since the First World War, but primarily the period after the Second World War. [61] [62] *Domdey* and *Kühne* examined the structure, functional mechanism and crisis of the capitalist world currency system and the chronic currency crisis from a current perspective. They devote a relatively large amount of space to history. [13] All of these works are also contributions to the history of state-monopoly capitalism.

In a coherent manner, the textbook on the economic history of Germany provides information on the basic processes of financial-historical development and includes financial policy very strongly in the consideration of the individual historical periods. [38]

Kaemmel [33] has created a comprehensive account of the development of financial history in slaveholding society, feudalism and pre-monopolistic capitalism, the scientific value of which lies above all in the numerous methodological pointers for further financial history research.

The *financial history of the socialist mode of production* is closely linked to the general economic history and political economy of socialism. The need to shape the financial and credit system in such a way that it effectively supports the goals of economic policy set by the communist parties has shaped the history of socialist finance. This is also the theoretical starting point of the few accounts of financial history available to date. The works of *Bogomazov* [5] and *Manevich* [36] make this clear.

The genesis of Marxist insights into the effect of the law of value in the socialist planned economy and their practical application, especially in the first years of socialist construction in the USSR, are the subject of a work by *Malafeev* [35].

Contributions to the financial history of socialism are contained in publications on certain economic aspects of the history of socialist countries, such as the history of planning, material interest, as well as in presentations of the history of socialist countries.

Accounts of the history of the CMEA contain analyses of the specific aspect of socialist integration. A close connection between the CMEA countries' plan coordination and commodity-money relations and the perfection of currency and financial instruments are important factors in the economic integration of socialist countries. The development and status of monetary and financial relations in the CMEA are therefore the subject of various publications. [16]

Literature:

- 1 *Anderson, B. L./Cottrell, P. L.*: Money and banking in England. Newton Abbot 1974; 2. *Andexel, R.*: Imperialismus - Staatsfinanzen, Rüstung, Krieg. Berlin 1968; 3. *Bechtel, H.*: Wirtschafts- und Sozialgeschichte Deutschlands. Munich 1967; 4. *Bodin, J.*: Réponse aux paradoxes. Paris 1568; 5. *Bogomasow, G. G.*, in: Beiträge zur Geschichte der Politischen Ökonomie des Sozialismus. Berlin 1975, p. 93 ff; 6. *Bregel, E. J.*: Banken und Kredit im Kapitalismus. Berlin 1957; 7. *Ders.*: Steuern, Anleihen und Inflation im Dienste des Imperialismus. Berlin 1955; 8. *Burg, H.*: Der Staat als Bankier. Berlin 1968; 9. *Cameron, R.*: Banking in the early stages of industrialization. New York 1967; 10. *Clapham, J.*: The Bank of England. Cambridge 1958; 11. *Colm, G.*, in: WA, H. 22, 1925, p. 222 ff;
- 12 *Dodwell, D.*: Treasuries and Central Banks, especially in England and the United States. London 1934; 13. *Domdey, K./Kühne, H. D.*: Die chronische Krise des kapitalistischen Währungssystems. Berlin 1972; 14. *Eistert, E* : Die Beeinflussung des Wirtschaftswachstums in Deutschland von 1883 bis 1913 durch das Bankensystem. Berlin 1970; 15. *Eynern, G. v.*: Die Reichsbank. Jena 1928; 16. *Faddejew, N. W.*: Der Rat für Gegenseitige Wirtschaftshilfe. Berlin 1975; 17. *Gehr, M.*: Das Verhältnis zwischen Banken und Industrie in Deutschland seit der Mitte des 19. Jahrhunderts bis zur

Bankenkrise von 1931. Tübingen 1960 (Diss.); 18. *Gossweiler, K.*: Großbanken, Industriemonopole, Staat. Berlin 1971; 19. *Hansmeyer, K.*: Der Weg zum Wohlfahrtsstaat. Frankfurt/M. 1957; 20. *Hardach, G.*, in: Schmollers Jb. 1970, p. 563 ff.; 21. *Harns, L. C.*, in: Les effets économiques des dépenses publiques. Paris 1956, p. 127 ff.; 22. *Hilferding, K.*: Das Finanzkapital. 1st ed., Vienna 1910;

23 *Jakob, L. v.*: Die Staatsfinanzwissenschaft theoretisch und praktisch dargestellt und erläutert durch Beispiele aus der neueren Finanzgeschichte europäischer Staaten. Halle 1821; 24 *Justi, J. v.*: Staats- wirtschaft. Leipzig 1755; 25. *Kaemmel, E.*: Finanzgeschichte. Berlin 1966; 26. *Krasensky, H.*: Kurz- gefaßte Bankgeschichte. Stuttgart 1968; 27. *Kulischer, J.*: Allgemeine Wirtschaftsgeschichte des Mit- telalters und der Neuzeit. Berlin 1958; 28. *Lehmann, K.*, in: JWG 1975, T. IV, p. 23 ff.; 29. *Lemnitz, A.*: Bankpolitik, Staatshaushalt und Währung in Westdeutschland. Berlin 1956; 30. *Liefmann, R.*: Beteiligungs- und Finanzierungsgesellschaften. Jena 1909; 31. *Lienhart, J.*: Die Reichsbank von 1876-1931 auf Grund ihrer Bilanzen und Erfolgsrechnungen. Würzburg 1936; 32 *Littmann, K.*: Increasing state activity and economic development. Cologne/Opladen 1957; 33. *Lungwitz, K.*, in: DWI-Berichte 1971, H. 12, p. 24 ff.; 34. *Mackenzie, K.*: The Banking Systems of Great Britain, France, Germany and the United States of America. London/New York 1960; 35. *Malafeev, A. N.*: Prošloe i nastojaščee teorii tovarnogo proizvodstva pri socialisme. Moscow 1975; 36. *Manevich, V.*, in: Contributions to the History of the Political Economy of Socialism. Berlin 1975, p. 200 ff;

37 *Menkel, H.*: Die monopolistische Entwicklung des deutschen Bankwesens von der Weltwirtschaftskrise 1929-1932 bis zum Ende der Hitlerdiktatur. Halle 1959 (Diss.); 38 *Mottek, H./Becker, W./Schröter, A.*: Wirtschaftsgeschichte Deutschlands. Vol. 3, Berlin 1974; 39. *Neumark, F.*: Wirtschafts- und Finanzprobleme des Interventionsstaates. Tübingen 1961; 40 *Obst, G./Hintner, O.*: Geld-, Bank- und Börsenwesen. Stuttgart 1967; 41. *Oshima, H. T.*, in: Am ER 1957, H. 3, p. 381 ff; 42 *Paacock, [95] A. T./Wiseman, J.*: The Growth of public expenditure in the United Kingdom. 2nd ed., London 1967; 43 *Penlo, V.*: Das Reich der Hochfinanz. Berlin 1960; 44. *Radandt, H.*, in: Der deutsche Imperialismus und der zweite Weltkrieg. Berlin 1960, p. 9 ff.; 45. *Ders.* in: JWG 1972, T. III, p. 37 ff.; 46. *Säuberlich, H.*: Das Großbankkapital und der Staat in der Weltwirtschaftskrise 1931/32 in Deutschland. Berlin 1964 (Diss.); 47. *Schwartz, A. J.*: A Monetary History of the United States 1867-1960. Princeton 1971; 48. *Sichterman, S.*, in: Zfges. Kred., special edition 1963; 49. *Stucken, R.*: Deutsche Geld- und Kreditpolitik 1914-1963. Tübingen 1964; 50. *Tew, B.*: International monetary Cooperation. London 1967; 51. *Trachtenberg, I. A.*: Denezhnye krizisy (1821-1938). Moscow 1963; 52. *Varga, E. S.*, in: Načalo obšego krizisa kapitalizma. Berlin 1974, p. 19 ff.; 53. *Wagner, A.*: Lehr- und Handbuch der Politischen Ökonomie. Leipzig/Heidelberg 1877 ff.; 54. *Witt, P. C.*: Die Finanzpolitik des Deutschen Reiches von 1903 bis 1913. Lübeck/Hamburg 1970; 55. *Bank-Lexikon*. Wiesbaden 1969; 56th *Encyclopedic Dictionary of Money, Banking and Stock Exchanges*. Frankfurt/M. 1967 and 1970; 57. *Handbuch der Finanzwissenschaft*. Tübingen 1952; 58. *Handbuch des gesamten Kreditwesens*. Frankfurt/M. (1965); 59. *Historische Forschungen in der DDR 1960-1970*, in: ZfG 1970; 60. *Europe and the evolution of the international monetary system*. Leiden 1973; 61. *IPW- Berichte*; 62. *MEiMO*.

Karin Lehmann

1.3.3. Forestry history

The history of forestry is the history of the utilization of the forest for human society. It is a special field of general economic history. However, it has so far been shaped less within the framework of general economic history, but has essentially been pursued by forest scientists in the context of forest science. On the one hand, this fact explains the insufficient link between forestry research and economic and cultural-historical developments. On the other hand, the interest of forestry science in researching historical facts and contexts, which is mainly due to the long-term nature of the forestry production process, has led to a relatively intensive study of forestry history.

The term forestry history originates from more recent times. It replaces the term forestry history. *Richter* writes: "Like Dieterich, I consider it appropriate to use the somewhat

to avoid the now colorless concept of forest history in the future. The focus of our historical forestry discipline is not the development of forests, but of forestry in the broadest sense. It forms the core of our discipline and the relationship between forests and human society." [22: 4] Although the term forestry history more precisely describes the specific subject of historical research, the term forest history essentially covers the same subject.

However, forest history or forestry history must be distinguished from forest history. According to *von Hornstein*, the subject of forest history is the "development of the forest influenced by human activity" [10: 161].

Hornstein classifies forest history as a specific branch of forestry science if it is essentially concerned with forestry issues. "However, if it is directed towards general forest-geographical and landscape science objectives, it will come closer to geographical and vegetation science." [10: 162] There is a close connection between forest history and forest economic history. The history of forestry must make use of the results of forest history, but can also make its own contributions to supplement and promote it.

To the extent that humans influence the forest, forest history is increasingly becoming a component of forestry history. This increasing interdependence is particularly evident in *Hilf* [9]. But even those works that are primarily oriented towards forest history, in which the link with forestry history is not explicitly presented (e.g. [4]), are interesting as sources for forestry history.

Of course, many sources from earlier times, such as old chronicles, special histories of monasteries and foundations, forestry and hunting regulations, *weistümer*, etc., are important for the historical depiction of the utilization of the forest for human society. Even before these documents, which give us direct information about people's relationships with the forest, the ancient and early German literary monuments as well as surviving place, field and forest names offer us the opportunity to form a picture of the forest in early historical times and to draw indirect conclusions about the role of the forest in people's lives. [9]

More than 200 years ago, forest history emerged as an academic subject from the teaching of public economics at some German universities. [26] The teachers there dealt with forest constitution and increasingly also the development of forestry. The main sources for this were the first forestry writings at the beginning of the 18th century.

The "Forstliche Chrestomathie" [13] published by *Löffelholz-Colberg* in 1866 provides a summarizing overview of the beginnings of forest history literature. It contains 44 references on forest history in general, 130 on the forest history of individual countries in Germany and 50 on the forest history of individual countries outside Germany. The Chrestomathie also lists 13 publications containing biographies of well-known foresters.

The first notable works of forest history were written by *Stisser* (1754 [32]), *Stieglitz* (1832 [31]) and *von Berg* (1871 [2]). These attempts to summarize the historical development of forestry focus not only on the description of forest conditions in the individual periods, but also on the development of forest ownership. The connection between the ownership of the forest and the actual management of the forest was so striking that the history of forestry became a history of forest ownership and the associated legislation as soon as it went beyond the scope of a mostly territorially limited description of the state of the forest. This applies in particular to the works published before the 19th century. However, *Roth's* work [25], published in 1879, is still strongly influenced by this approach. *Bernhardt* gave his three-volume forest history, which appeared between 1872 and 1875 and was the standard work on forest history for a long time, the title "Geschichte des Waldeigentums, der Waldwirtschaft und Forstwissenschaft in Deutschland" [3]

and thus also underlined the importance of the ownership structure for the development of forestry.

In contrast to the previously published works, *Bernhardt* attempts to see the development of forestry to a greater extent in the context of overall economic and [97] cultural development. However, his idealistic basic position only allows the existing approaches of a dialectical approach to the research and presentation of forestry history to have a limited effect.

It is no coincidence that some of the standard works that determined forestry history teaching and research for a long time concentrated on the period between 1870 and 1890.

Although the beginnings of orderly forestry emerged between the 13th and 15th centuries under the influence of urban and bourgeois development, they stagnated, as did the entire early bourgeois development. The Thirty Years' War, the exploitation of the forests to finance the costly courtly household and the priority given to hunting as a means of representation and entertainment in the period of absolutism, the more or less exploitative extraction of wood to satisfy the increasing demand for mining, metallurgy, the glass industry and other trades, as well as the increase in secondary uses that were harmful to the forest, such as litter harvesting. In the second half of the 18th century, the increase in forest-damaging secondary uses, such as litter harvesting in the forest, led to a forest condition that was in stark contrast to the increasing demands of emerging capitalism. The necessary resolution of this contradiction in the transition period to capitalist production conditions produced a number of foresters at the end of the 18th and beginning of the 19th century, such as *H. Cotta* (1763-1844), *G. L. Hartig* (1764-1837) and *W. L. Pfeil* (1783-1859), who made outstanding contributions both to the reorganization of practical forestry and to the development of forestry science and its dissemination. In line with the situation described above, their work focused on questions of silviculture, forest management and yield regulation as well as forest use and forest administration.

It was not until the second half of the 19th century that the time was ripe for a comprehensive account of forest history. Whereas up to this point in time, works on forest history had only been devoted to individual aspects of development or encyclopaedic works, e.g. *Hundeshagen* (1828 [11]), had only given a brief description of the history of forestry and forest science, the need now arose for a comprehensive account of the development of forestry. The interaction of various factors decisively promoted this need and its realization. The enormous increase in forestry knowledge and experience since the development of regulated forestry in the second half of the 18th century pushed for systematization and generalization. The rapid growth of the capitalist economy placed ever greater demands on forestry. The resulting contradictions between management methods that could satisfy increased needs and ensure high profitability in the short term and management methods that promised high returns in the long term - reflected in the fierce controversy between the theory of soil purity and the theory of forest purification - encouraged the desire to generalize historical experience in forest management and its dependence on general economic development. The unification of the German Reich "from above" also favored the presentation of a "German" forestry history, but also gave the reactionary and chauvinistic tendencies in further historiography the upper hand.

The necessity and possibility of pursuing forest history as a science arose in Germany at a time when it was only possible as an apologetic of the developing German imperialism. The works written during this period [2] [3] [25] [29] clearly show the shortcomings of pre-materialist theories of history.

[98] The regularities of the development of forestry in Germany are just as little recognized by the bourgeois forest historians as the determining causes, the direct driving forces of the historical movement. For them, the historical movement takes its

Theories, ideas and actions of great personalities and other idealistic motives without analyzing their deeper causes. If certain forestry-historical development processes are presented as the result of material causes on the basis of the available factual material, then they are interpreted idealistically and obscured. [28: 227 f.] As an example of this, *Schindler* cites *Berg's* work, among others, in which the emergence of an orderly forestry is attributed to material, economic causes (cities, industry, mining, etc.). However, its practical implementation is explained by idealistic driving forces, "by the genuine Germanic love of the forest, by the joy of the romanticism of the forest darkness and of beautiful trees", by the "character of the people" and the fact that "at least the educated classes of the German people ... have faithfully preserved this old-fashioned sense" [2: 4 ff.].

The *Handbuch der Forst- und Jagdgeschichte* [29] published by *Schwappach* in 1886 had a greater and more lasting effect than *Bernhardt's* work. But even *Schwappach*, although he undoubtedly gives a more thorough and comprehensive account of forestry development, does not go as far as the economic causes. In contrast to *Bernhardt*, he even refrains almost completely from describing the relationships to general political, cultural and economic development. *Bernhardt* [3] attempts to establish these connections, but from the standpoint of the bourgeois-idealist, Prussian-German view of history.

With all due respect for the effort to process a large number of historical facts and, in some cases, to establish links to general political and economic developments, the fact remains that the class position of bourgeois forest historians did not allow them to reveal historical truths and connections as soon as the interests of the ruling classes were affected. Thus the works of this period remain above all interesting collections of facts. However, the contexts they reflect, their justifications and "teachings" require critical processing on the basis of dialectical and historical materialism.

After the works of *Bernhardt* [3], *Roth* [25] and above all *Schwappach* [29] had summarized the development of forestry up to pre-monopolistic capitalism, the history of forestry stagnated in the course of imperialist development. People contented themselves with new editions of the existing works without including the developments in the first years and decades of the 20th century. For example, the forest history written by *Schwappach* in 1927 [30] only goes as far as the end of the 19th century in some questions.

The stagnation of forest history in the imperialist phase reflects to a certain extent the lack of progressive development in forestry and forest science. While capitalism in its progressive phase led forestry and forest science to flourish, in its reactionary phase such significant achievements were lacking, which would have been a force to be reckoned with in the history books.

The urge for historical observations that flared up after the First World War, which found expression in a "call for the promotion of forest history" by *Martin* [15] and in many individual historical studies, had different causes and a different aim than the emergence and upswing of forest history in the period from 1870 to 1890. While *Bernhardt* [3], for example, was still concerned with the "Ge-[99]setz" of the development of human society, albeit ideologically dressed up, *Martin*, among others, is concerned with quite pragmatic questions of forest management. The aim of many historical studies at this time was to recognize from history which forest management promised the greatest success under specific territorial conditions. The studies extended to the development of stocking conditions [8] [12]; to the history of stands and districts [33] [14]; to the history of larger forest districts and forest administrations [18] [20] as well as to historical observations on various forms and methods of management [16] [35].

It was not until 1938 that *R. B. Hilf* made another attempt to give a complex account of the history of forestry. [9] The timing of this attempt can be explained on the one hand by the centralized management of forestry in fascist Germany, in contrast to the Weimar Republic.

Forestry, which also focused more strongly on holistic considerations; on the other hand, there was also a "need" to derive a pre-eminent position of German forestry in the world from the development of forestry in Germany. For example, *Hilf* wrote in the introduction to his work: "This brief consideration suggests that the most productive source of the history of the forest and its management flows in Germany. Drawing from it should be justified at a time when a number of countries are endeavoring to establish regulated forestry, at a time when, judging by some indications, historical science is called upon to convey essentials to life in a new form." [9: 33]

In keeping with its title, *Hilf*'s work is first and foremost a history of the forest. The description of forest use is primarily from the point of view of its impact on the forest. Nevertheless, it is a remarkable description of the interrelationship between general economic and forestry development. In its overall structure, it is idealistic, as the following statement makes particularly clear: "If we foresters unite all our efforts to follow the workings of nature even more carefully and to build up the forest from it as a source of useful raw materials, but also of inner gathering and enrichment, if our people respect this endeavor for one of their noblest gifts from God through action, then our fathers and our mistakes have not been in vain, then the eternal German forest will one day rise for us in beauty and abundance!" [9: 28]. [9: 282] In spite of this idealistic veneer and primarily political goals in the description of the more recent development, *Hilf* shows in some sections, especially for the 19th century, examples of the decisive influence of the general development of the productive forces on the development of forestry in a clarity that has not yet been presented in forest-historical works.

Hilf's work is the last attempt to date to give a more or less complete account of the history of forestry.

The destruction of fascism in Germany created objective opportunities for the development of research into the history of forestry based on historical materialism. However, the enormous tasks involved in rebuilding the forestry industry, which had been severely damaged by the war, initially placed other tasks on the agenda. Forestry history activities concentrated on the immediate confrontation with the disastrous fascist past and its effects on the forestry industry. The new beginning of forestry history research was also significantly influenced by two other causes:

[100] Firstly, the forestry history work of the past lacked progressive traditions that could have been directly linked to. The special situation of the forestry workers, which was reflected in their relative backwardness and lack of political organization, and the very close connection of forestry officials and forestry scientists with the reactionary state apparatus made it difficult to develop progressive directions in forestry history in the context of the generally unfavourable social conditions in Germany. [28: 232 ff.]

Secondly, there was a lack of cadres qualified to work on the history of forestry. The technically experienced cadres had to be replaced due to their involvement in fascist Germany, and the progressive cadres who were initially available in smaller numbers had to concentrate on current tasks in the development of forestry.

In 1953, *Richter* [22] attempted to formulate the most important tasks for the development of a history of forestry on the basis of historical materialism in order to initiate more intensive work on the history of forestry.

The concrete work on the history of forestry concentrated on a series of individual investigations and observations, some of which arose by chance or were undertaken on specific occasions. Systematics and determination in the sense of an inventory and critical

The processing of previous forestry history on the basis of historical materialism was initially not recognizable.

In 1950, *Richter* [21] published a comprehensive biography of Cotta, which provides a number of interesting and sometimes new insights into the development of forestry from the 2nd half of the 19th century to the present day.

18th century to the middle of the 19th century. Despite the recognizable efforts to depict the causes and effects of forestry activities in connection with economic, political and intellectual-cultural development, the work does not yet achieve a new quality from the point of view of the application of dialectical and historical materialism. The first beginnings of such a new quality, even if only in the very specific question of the position of the Tharandt Forestry Academy in relation to the revolutionary events of 1848/49, can be found in *Turski* [34].

Ritter's contribution "Kapitalistisches Profitstreben als Hemmnis der Landeskultur und Forstnutzung" in his work "Agrarwirtschaft und Agrarpolitik im Kapitalismus" [23] is significant for the presentation of the period of capitalism in the history of forestry on the basis of historical materialism. The attempt by several authors to show the effects of capitalism on the development of German forestry [38] also conveys new connections in forestry history that have not yet been presented in this form. *Müller's* work "Fragen der objektiven Gesetzmäßigkeit in der Forstwirtschaft" [19] contains some interesting thoughts on the development of forestry, in particular on the driving forces behind the development of sustainable forestry.

The development of scientific disciplines and scientific institutions plays an important role in the history of forestry. Special anniversaries, such as the 150th anniversary of the Tharandt Forestry Teaching and Research Institute in 1966, usually provided the occasion for such work.

Significant shortcomings in the history of forestry after 1945 are that a description of the overall development of forestry on the basis of historical materialism is still lacking and that the historical treatment of forestry since the liberation from fascism has not been systematic and purposeful.

Buggel undertakes an analysis of the history of forestry of locally and temporally limited subsections of the development of forestry after 1945. [5] He also attempts to arrive at certain methodological generalizations with regard to the practical use of historical forestry findings.

With his economic-historical research on the former Zittau municipal forest, *Schindler* attempts to create an example of the "content-related and methodical structure of a socialist German forestry history" [28]. This work, with its conclusions for the development of a socialist forestry history, is currently the best basis for the further development of forestry history work.

In the Soviet Union, forest history research after 1945 was stimulated and promoted by the well-known forest scientists *V. P. Vasiliev* and *I. S. Melechov*, among others. Their efforts to achieve a new scientific penetration and interpretation of forest history are clearly recognizable. *Melechov* was concerned with the role played by the Russian Academy of Sciences, in particular *Lomonosov*, in the development of large-scale forestry in Eastern Europe. At the inaugural meeting of the Forest History Commission at the International Congress of Historians in Moscow in 1970, he discussed the overemphasis of German influence on the development of Russian forestry up to the mid-19th century. [17] An interesting overview of the development of forestry in pre-revolutionary Russia can be found in the work of *I. G. Bejlin* [1]. Many publications deal with the development of the forestry industry after the Great October Socialist Revolution. However, a comprehensive treatment of the history of forestry on the basis of dialectical and historical materialism is still a task facing Soviet forestry historians.

A comprehensive account of the history of forests, forestry and the timber industry from the beginnings to the present was given by Polish forestry scientists in a remarkable book on the occasion of Poland's 1000th anniversary in 1965. [37]

One of the most interesting recent works is "Forstgeschichte im Zeitalter der industriellen Revolution" by *H. Rubner* [26]. Although one cannot follow the philosophical interpretations of his work, e.g. on "Power and Freedom in Forest History", and although the final consistency in the presentation or interpretation of objective relationships is sometimes lacking, the presentation of the development of productive forces, production relations and social superstructure, the interweaving of forestry with social development in the age of capitalism is worthy of note.

The work of French forest historians is also interesting [6] [7]. The historical analysis of the influences of mercantilism, which was particularly pronounced in France through *Colbert*, the physiocrats and especially the French Revolution of 1789 is of importance beyond the borders of France.

The history of forestry in the USA is essentially a history of capitalist forest devastation - 30% of the original forest area was destroyed in the 19th century [27] - and the attempts to overcome its consequences. [24] [36]

Although different emphases are placed on the history of forestry in the individual countries, depending on the specific development, the subject of forestry history can be outlined as follows:

Forestry history explores the historical development of the use of the forest by human society. It analyzes the emergence and development of the needs for forest products and services as well as the state of the forest in interaction with the demands on the forest. The focus is on the development of forest management. It reflects the determining influence of the productive forces in their interaction with the relations of production and the social superstructure.

In the study of production relations, the focus has so far been on ownership relations and the varying influence of the state on forest management. A history of forestry based on dialectical and historical materialism will have to pay greater attention to the situation of farmers and workers, whose conditions of existence are directly linked to the management of the forest, in addition to a more intensive elucidation of the relationships between forestry and the development of society as a whole.

Literature:

- 1 *Bejlin, J. G.*: Očerki po istorii lesnykh obščestvy dorevoljucionnoj Rossii. Moscow 1962; 2nd ed,
- C. H. E. von*: Geschichte der deutschen Wälder bis zum Schlusse des Mittelalters. Dresden 1871; 3.
- Bernhardt, A.*: Geschichte des Waldeigentums, der Waldwirthschaft und Forstwissenschaft in Deutschland. Vol. 1-3, Berlin 1872-1875; 4. *Bertsch, K.*: Geschichte des deutschen Waldes. Jena 1953; 5. *Buggel, H.*: Versuch einer standörtlichen und forstökonomischen Monographie des StFLB Tharandt in Dippoldiswalde als Beispiel für die Standardisierung der forstgeschichtlichen Methode im Dienste der sozialistischen forstbetrieblichen Planung. Tharandt 1964 (Diss.); 6. *Devéze, M.*: La Vie de la Forêt Française au XVIe Siècle. Paris 1961; 7. *Ders.*: Histoire des Forêts. Paris 1965; 8.
- Hesmer*, in: Zeitschrift für Forst- und Jagdewesen 1933 (65), p. 505 ff.; 9. *Hilf, R. B.*: Wald und Weidwerk in Geschichte und Gegenwart. Part 1: The forest. Potsdam 1938; 10. *Hornstein, F. von*, in: Forstwissenschaftliches Centralblatt 1950 (69), p. 161 ff.; 11. *Hundeshagen, J. Chr.*: Encyclopädie der Forstwirtschaft. Tübingen 1828; 12. *Kienitz, E.*, in: TFJ 1936 (89), p. 285 ff.; 13. *Löffelholz-Golberg, F. von*: Forstliche Chrestomathie 1. Berlin 1866; 14. *Mantel, K.*: Geschichte des Ebersberger Forstes. Munich 1930; 15. *Martin, H.*, in: TFJ 1922 (73), p. 74 ff.; 16. *Ders.*: Die geschichtliche Methode in der Forstwirtschaft. Berlin 1932; 17. *Melechov*: Očerk razvitija nauki o lese v Rossii.

Moscow 1957; 18. *Müller, G.*, in: TFJ 1935 (88), p. 121 ff.; 19. *Müller, K.*: Fragen der objektiven Gesetzmäßigkeit in der Forstwirtschaft. Berlin 1961; 20. *Richter, A.*: Geschichte der Organization der sächsischen Staatsforstverwaltung. Dresden 1935; 21. *Ders.*: Heinrich Cotta. Radebeul/Berlin 1952; 22. *Ders.*: Wesen und Aufgabe forstgeschichtlicher Lehre und Forschung. Leipzig 1953; 23. *Ritter, K.*: Agrarwirtschaft und Agrarpolitik im Kapitalismus. Berlin 1955; 24. *Rodgers, A. D./Fernow, B. E.*: A Story of North American Forestry. Princeton 1951; 25. *Roth, K.*: Geschichte des Forst- und Jagdwesens in Deutschland. Berlin 1879; 26. *Rubner, H.*: Forstgeschichte im Zeitalter der industriellen Revolution. Berlin 1967; 27. *Ders.* in: Forstarchiv 1970 (41), p. 252 f.; 28. *Schindler, W.*: Wirtschaftsgeschichtliche Untersuchungen am ehemaligen Stadtwald Zittau. Tharandt 1969 (Diss.); 29. *Schwappach, A.*: Handbuch der Forst- und Jagdgeschichte Deutschlands. Berlin 1886; 30. *Ders.* in: Handbuch der Forstwissenschaft. Vol. 4, Berlin 1927; 31. *Stieglitz, Ch. L.*: Geschichtliche Darstellung der Eigentumsverhältnisse an Wald und Jagd in Deutschland. Leipzig 1832; 32. *Stisser, F. U.*: Forst- und Jagd-Historie der Teutschen. Leipzig 1754; 33. *Taeger, E.*, in: TFJ 1920 (71), p. 215 ff.; 34. *Turski, W.*, in: WZTHD 1953, p. 205 ff.; 35. *Vanselow, K.*: Die Waldbautechnik im Spessart. Berlin 1926; 36. *Winters, R. K.*: 50 Years of Forestry in the USA. Washington 1950; 37. *Drieje Lasow Lesnictwa i Drzewictwa w Polschie.* Warsaw 1965; 38. *On the effects of capitalism on the development of German forestry.* Berlin 1959.

Frithjof Paul [103]

1.3.4. Geographical economic history

Geographical economic history has the task of researching the regional structures of social production processes as a spatial reflection of the social and regional division of labor as well as the interrelationships between society and the geographical milieu in their historical changes. Historical-economic geography has the same object of research. [9: 33]

Both scientific complexes are specialized fields of economic history and economic geography. They differ in their different approaches to the object of research and use historical *and* geographical working methods in their research. [11: 163] Starting from the state of development of the productive forces and the relations of production, they examine the emergence, development and distribution of economic regional structures, i.e. the relationships and interdependencies of the unity of locations of production and consumption, and thus provide the spatially relevant interpretation of the impact of social productive forces in the geographical environment. [10: 217 ff.]

The stronger orientation of geographical research towards the present (see 1.4.5.) has assigned historical-economic geography the task of conducting studies within the historical development with special consideration of the approach to the current economic regional structure (see the corresponding chapters in [20]) in order to "capture the geographical picture of the present in its dialectical development" [13: 21]. Geographical economic history, on the other hand, examines the development and distribution of economic locations from an emphatically socio-historical perspective. It endeavors to reconstruct the former economic regional structures either in sub-areas or as an overall system on the basis of historical cross-sections and longitudinal sections in order to capture the changing spatial (geographical) picture in the individual concrete historical stages of social development with the development of productive forces and production relations. [11] [12]

Studies of economic regional structures have the task of analyzing the causes for the formation of these locations and their spatial relationships within the geographical environment in the process of location development and location linkage, and of explaining their significance for social production at the various stages of social development, over and above the communication of facts (location, location distribution). Geographical economic history should primarily examine those spatial relationships that exist between

- specific locations of societal production in the process of increasing labor stee- lization,
- specific locations of social production and special elements of the geographic milieu. Finally, it is about
- The aim is to achieve a total recording, analysis and evaluation of the respective economic regional structure as an expression of a socially determined spatial production system [10: 222] and thus to uncover the regularities of regional location structures of production within social development.

In the USSR [6] [19] and in other socialist states [17], studies that could be classified as geographical economic history are carried out within the framework of historical geography. In the FRG, such work is covered both **[104]** by historical-geographical studies (see below) and by so-called historical spatial research [14] [15].

Geographical economic history, a young special field of economic history that only emerged in the 1950s under the specific conditions of the GDR [3: 4], is diametrically opposed to the views of bourgeois historical geography, which attempts to capture so-called cultural landscapes in terms of their genesis (history of cultural landscapes) by abstracting social regularities [2: 7 ff]. Modern bourgeois historical geography not only negates the regularities of social development, but even avoids a depiction of the historical interrelationships between nature and society and relegates this question to the remit of historical science. It limits its investigations to the presentation of "physiognomic-structural landscapes and functional spaces of the past" [1: 44 ff.], without explaining the process of their emergence and development.

In historical development, the production and reproduction of society always exist in a concrete, individually very differentiated relationship to the geographical environment. The close connection between the constantly expanding social division of labor and the regional division of labor [LW 3: 440 ff.] is the main reason for the formation and development of economically determined, regionally differentiated locations. In the unity of production and consumption locations, they enter into diverse interdependent relationships as economic regional structures and form a concrete-spatial production structure corresponding to the respective state of social development. [7: 79 ff.] The reference to the locational dependence and regional distribution of production is a necessary element of investigation in economic-historical considerations.

The spatial field of action of social production is the geographical environment. This is where the metabolism between man and nature, the "eternal natural condition of human life" [MEW 23: 198], takes place through the labor process. In his analysis of the labor process, *Marx* explained the significance and value of the elements from the natural realm of the geographical environment for the workings of this process. All the basic materials, all the raw materials that society needs for its reproduction, come from this natural realm as material substance and thus as the original object of labor. [MEW 23: 57] Production is always bound to objectively real preconditions created by nature and realized in the natural realm of the geographical environment. [Furthermore, these elements in the production process in its unity as a labor and nature process [MEW 24: 241] also act in various forms as means of labor. [MEW 23: 195, 197]

The locations of social production as an objective reality within the geographical environment are constantly confronted with the natural realm of this environment and are in various mutual relationships with each other. [5: 217 ff.] With the progressive development of social production and the increase in the level of knowledge about the operation of natural laws in the geographical environment, the expansion of technical

Thanks to the increasing possibilities and exploitation of available raw materials, it is possible to obtain the necessary means of production and consumption for society on an ever larger scale. This means ever more extensive interventions by society in the natural area of the geographical environment. The earth's surface is increasingly being reshaped by social labor. The physiognomy of the earth's image undergoes considerable changes and corresponds less and less to the original natural state. Less and less can it be attributed to the exclusive action of natural forces. In the process of this development, the natural area of the geographic environment is increasingly enriched with social labor, and the proportion of the natural environment still uninfluenced by social production is constantly decreasing.

Such a natural environment, changed by social production, represents a qualitatively new stage of development compared to the original state. From the uninfluenced natural environment and its elements increasingly altered by social production, together with the elements introduced into this environment by society via the production process, a qualitatively new stage of development emerges.

"incorporated" additional material objects under the constant action of the laws of nature and society, the geographical milieu, which differs decisively in appearance and potency from the originally existing natural environment. [5: 237] With the progressive economic development of society, the interrelations between society and the geographical milieu are constantly increasing. On the one hand, the nature transformed by society or the additional objects built are subject to the effects of the laws of nature; on the other hand, society is constantly making changes to the nature and design of the earth's surface, thus contributing to the further development of the geographic milieu. This process continues in periods of particularly intensive development of the productive forces (e.g. during the industrial revolution) and has increased enormously in recent times under the conditions of the scientific and technological revolution. [18: 322 ff.] With the development of social production, the geographical milieu is increasingly transformed from a natural given into a social reality, in which the form and features of the geographical environment created by the laws of nature are changed by society and inextricably intertwined with the additional material objects created by society.

In contrast to the natural environment, the geographical milieu is defined as a social and thus historical category whose design, utilization and exploitability are dependent on the mode of production at any given time. At the same time, it also develops as a productive force with the increasing share of social labor. [10: 220] Furthermore, it is a geographical category, since all objects belonging to it can be geographically grasped, i.e. localized, and are partially or completely connected to each other in a spatial functional system (e.g. in an economic regional structure).

As material objects, the sites of social production and consumption [MEW 23: 195] are integrated components of the geographical milieu and thus an expression of society's influence on and needs of the natural area of the geographical environment (see above). Within the geographical environment, society organizes and localizes its sites of production and consumption on the basis of the class interests of the ruling class and the level of development of the productive forces. According to the societal division of labor, these locations are in diverse spatial relationships to each other and in this allocation form a concrete society-related and regionally specific location structure. These location structures are also a reflection of the extent to which society, due to the level of development of the productive forces, has the ability and, as a result of the prevailing production conditions, the real prerequisite to optimally utilize the yield of the natural area of the geographical environment and thus to advance the shaping of the geographical environment in the interests of the reproduction of society. [8: 114 f.] "The favor of natural conditions always provides only the possibility, never the reality of surplus labor ..." [MEW 23: 537]

The more developed the social division of labour is, the more differentiated and complicated the spatial location structures become, but the more difficult it is to analyze them in terms of cause, function and spatial relationship. With the progress of material production, the development of the productive forces and the replacement of historically outdated production relations, the location structures of the productive forces also change, qualitatively new regional relations are formed, while outdated ones disappear. In many cases, the roots of these new relationships emerge from parts of the old structure, individual parts of which initially remain, but which increasingly lose their significance and disappear in the course of development when they no longer correspond to the changed production conditions. In addition, new spatial connections are created solely on the basis of changed production relationships, without the previous models. Thus, location structures are not rigid spatial entities, but are subject to a dynamic process. Like the geographical environment, economic regional structures are a historical and geographical category.

It follows that a specific stage of social development is assigned a specific economic regional structure that corresponds only to this stage. Economic regional structures with their locations are the visible expression of the activities of social production within the geographical environment. With changes in a social condition or an element originating from the natural area of the geographical environment within this structure, modifications occur within the existing functional system, which can cause new, changed structures in sub-areas or, if they are of corresponding importance, can give impetus to the restructuring of the existing overall system. When analyzing economic regional structures, it is therefore important to identify those factors that decisively determine and further develop the socially determined regional structure of production.

For example, the replacement of the feudal relations of production during the industrial revolution by capitalist commodity production pushing for all-round expansion as a result of the expansion of the capitalist market and the progressive social division of labor increasingly replaced spatially limited, self-contained location structures with increasingly large-scale expansion. [MEW 4: 463 ff.] The capitalists' striving for capital valorization, i.e. for the achievement of maximum profits, subordinates the resulting spatial location structure, which follows capitalist laws, to the differently developed conditions of capital valorization in terms of geographical distribution. As a result of these location concentrations, spatially differentiated location concentrations with different relationships arise within the economic regional structures.

The industrial revolution reinforced the previously relatively weak tendency towards the uneven economic development of individual geographical regions. As a result of the law of surplus value and the law of competition and anarchy of capitalist production based on it, new locations emerge or the old locations of production are preserved exclusively in those areas in which, as a result of historical development, there is already a larger supply of workers with general or special production experience and favorable market conditions for the promotion of exchange, i.e. exploitation conditions, i.e. overall conditions that correspond to the capitalists' striving for the highest possible profit.

This development led to an increasing concentration of social productive forces and thus economic locations in the areas and places that had the most profitable initial value in terms of capital appreciation for a variety of reasons. The centralization of industrial means of production led to a concentration of the population, increasing urbanization and economic concentration zones. With the progressive development of society at the same, but above all with increasing favorability for capital utilization, the conurbations of the present developed. [4: 208]

The development of concentrations of economic locations is particularly visible in Germany in the period after 1850. At the same time, a process of increasing polarization in the regional distribution of social productive forces can be seen. Industrial concentration zones, which go hand in hand with a high population and settlement density, are contrasted with underdeveloped or less developed location regions, which are characterized by scattered locations of social productive forces, low population density, negative population balances and low settlement sizes. [7: 108]

In order to be able to comprehensively recognize the dynamics in the development of economic regional structures and the relationships between the locations in this system, the largest possible number of temporally differentiated cross-sectional analyses of these regional structures is necessary for specific studies. Historical comparisons should be used to record the active, mobile elements that bring about changes in the regional structure in terms of content and space. The further back in history one goes, the more difficult it is to carry out these analyses, but the more uncertain it becomes to recognize the structures that actually existed.

The studies of economic regional structures serve to depict the geographical picture of the development of social productive forces. They show the spatial relationships between production and consumption within a socially determined territory. These studies are a necessary element for a complete understanding of social production and are therefore an important component of a history of productive forces in the context of economic history.

Literature:

1 *Fehn, K.*, in: Mitt. Geogr. Ges. Munich 1976 (61), p. 35 ff.; 2 *Jäger, H.*: Historische Geographie. Braunschweig 1969; 3. *Junge, R.*: Weltgeschichte der Standortentwicklung der Wirtschaft in der Klassengesellschaft. Vol. 1, Berlin 1961; 4. *Mohs, G.*, in: Geographische Berichte 1968 (13), H. 3, p. 206 ff.; 5. *Narweleit, G./Neef, W./Strenz, W.*, in: JWG 1967, T. I, p. 209 ff.; 6. *Samarkin, V. V.*: Istoričeskaja geografija zapadnoj evropy v srednie veka. Moscow 1976; 7. *Schmidt-Renner, G.*: Elementare Theorie der Ökonomischen Geographie nebst Aufriß der Historischen Ökonomischen Geographie. Gotha/Leipzig 1966; 8. *Strenz, W.*, in: JWG 1963, T. IV, p. 111 ff.; 9. *Ders.* in: Beiträge zu Problemen der Historischen Geographie und der Geographischen Wirtschaftsgeschichte in der DDR. Gotha/Leipzig 1270, p. 27 ff.; 10. *Ders.* in: JWG 1973, T. II, p. 217 ff.; 11. *Ders.* in: JWG 1976, T. I, p. 163 ff.; 12. *Ders.* in: JWG 1976, T. IV, p. 235 ff.; 13. *Wegner, E.*, in: Beiträge zu Problemen der Historischen Geographie und der Geogra-**[108]phischen Wirtschaftsgeschichte** in der DDR. Go- tha/Leipzig 1970, p. 9 ff.; 14. *Handwörterbuch der Raumforschung und Raumordnung*. Vol. 1-3, Han- nover 1970; 15. *Historische Raumforschung*. Vol. 1-2, Bremen/Horn 1956-1958, Vol. 3 ff., Hanover 1961 ff.; 16. *International Geography '76*. XXIII International Geographical Congress. Historical Geography. Section 9, Moscow 1976; 17. *Komise pro historickou geografii při Historickém ústavu* (or) *Ústavu československých a světových dějin ČSAV*. Historická geografie. Vol. 1 ff., Prague 1968 ff.; 18. *Man, Society and Environment*. Berlin 1976; 19. *Moskovskij filial geografičeskogo občestva SSSR*. Istorija geografii i istoričeskaja geografija. Moscow 1975; 20th *Economic Geography of the GDR*. Vol. 1, Gotha/Leipzig 1977.

Wilfried Strenz

1.3.5. History of the capitalist world economy

The world economic history of capitalism as a branch of the economic history of capitalism examines the most important tendencies in the growth of the world economy, from the exchange of goods to the activities of international banking syndicates. This process is, in its manifold forms, a process of the internationalization of economic life, the convergence of the most distant geographical points of economic development, the levelling of capitalist relations, the growing opposition between the concentrated property of the capitalist class and the international proletariat, the polarization of the countries of the capitalist world economic area into rich and poor countries. Since the nature and concept of

Although the world economy is a necessary process of "metabolism" in a society with an international division of labor (see 2.5.24.), the world economy is a relatively young historical category. It has only been around since the end of the 18th century.

For the historian it is a general experience that everything in history began much earlier than it appears in its mature form. The most important elements of a capitalist world economy, such as the world market, world trade, the beginnings of the international division of labor, world money, world market prices, world traffic and the international migration of people and capital, already existed in pre-monopolistic capitalism. And although the term "world economy" was not yet used at that time, there were already a number of treatises on important elements of the development of a capitalist world economy, both of a historical-descriptive and historical-analytical nature, some of which reached a theoretical level. *Wilhelm Langenbeck*, who wrote a history of world trade in modern times in the 1920s, therefore emphasized very correctly: "To present the enormous phenomenon of world trade through almost half a millennium in its historical development in a relatively small space requires a very specific selection from the abundance of political, geographical, economic and technical elements, which in their interaction only form a picture of world trade." [8: Preface]. [8: Preface]

However, capturing, organizing and presenting the vast historical material can only succeed imperfectly without a scientific theory of the world economy.

[109] Bourgeois authors who deal with the history of the capitalist world economy often attribute the development and changes of this world economy to demand. [7] In their opinion, the decisive role that Europe played in the world economy of the 19th century is based on the colossal increase in its needs, as its population grew from 200 to 400 million in the course of that century. Now it is of course true that, in the end, demand is the impetus for production and the increase in production. But once production exists, the conditions of its existence give rise to its own laws of development, and the essence of the capitalist mode of production consists precisely in the fact that, following its own center of gravity, the pursuit of profit, it incessantly increases production and at the same time holds back consumption. In the age of capitalism, demand is not decisive for production. The world economy was not shown the way by the needs of consumption, whether in Europe or overseas, but solely by the need of capital for an unlimited increase in production while at the same time holding down the consumption of the masses.

This realization goes back to *Marx*, the founder of scientific socialism. The non-Marxist or anti-Marxist accounts of world economic history ignored *Marx's* theory of foreign trade and his statements on world economic history, did not know them at all or ignored them, and therefore did not deal with them. Yet *Marx* is the researcher who went far beyond his predecessors and was never equaled by any subsequent bourgeois author.

In his theory of foreign trade, *Marx* drew on the classical economic doctrines of the bourgeoisie, but eliminated their theoretical shortcomings as well as the apology of capitalism. *Marx* first described the class character of the capitalist world economy and demonstrated how national surplus labor is redistributed through foreign trade. In *Marx's* system, foreign trade is not only circulation, but also distribution. It is one of the instruments of the exploitation of one nation by another. *Marx* scientifically explained the deepening of the gap between rich and poor countries within the framework of the capitalist world economic system. As is well known, *Marx* abolished the "extraterritoriality" of world economic relations both in history and in theory, as we still find it in Ricardo's system [13: 120]. *Marx* formulated the category of international value. [1]

The theory of foreign trade was thus logically and perfectly integrated into the general labor theory of value and the overall theoretical system. The law of value also became the general law of motion for foreign trade. Capitalist foreign trade is regulated by the profit motive on the general basis of labor value. Any attempt to periodize the history of the capitalist world economy must therefore also start from the basic economic law of capitalism (see also 2.5.24.).

The way in which *Marx* himself expressed the historical tendency of the capitalist world economy can be seen from his treatment of the law of the tendency of the average rate of profit to fall.

According to *Marx*, the law of the tendency of the average rate of profit to fall is the concrete expression of the historical dilemma of capitalism. "In view of the great importance", he writes, "which this law has for capitalist production, one can say that it forms the mystery around whose solution the whole of political economy has revolved since Adam Smith" [MEW 25: 223]. "It is ... in every respect the most important [110] law of modern political economy and the most essential for understanding the most difficult conditions. From a *historical point of view, it is the most important law*" ([MGr 634] - author's emphasis). The tendency formulated in this law would long ago have led the capitalist process of reproduction ad absurdum on a world scale, would have brought it to a complete standstill, if it had not been counteracted by other tendencies, among which *Marx* first of all mentions the increase in the degree of exploitation of labor, the pushing down of labor wages below their value, the cheapening of the elements of constant capital, the creation of a relative overpopulation, foreign trade and the increase in share capital. [MEW 25: 242 ff.] But the most essential means of halting the standstill of the capitalist reproduction process, which is threatened by the tendency of the average rate of profit to fall, is the destruction and abandonment of capital itself, the so-called devaluation of capital, which in capitalism takes place primarily in the form of cyclical crises (see 2.5.25.).

Questions of the history of the capitalist world economy also play a major role in *Lenin's* works. As early as 1896 and 1899, *Lenin dealt with* the questions of foreign trade under capitalism. According to *Lenin*, foreign markets are an integral part of the capitalist market par excellence. [In capitalism, the internal market is intimately connected with the external market. *Lenin* shattered the fundamentally false, reactionary-utopian idea (Sismondi, Russian folklorists) that without external markets and a non-capitalist environment, the realization of surplus value with the expanded reproduction of capital was theoretically impossible. At the same time, *Lenin* pointed out the real causes for the necessity of external markets in capitalism: Firstly, large-scale capitalist industry emerged in individual countries at a time when the circulation of commodities was already largely developed and trade relations between states were expanding; secondly, as a result of the anarchy of social production, the individual branches of capitalist production develop unevenly, so that the more rapidly developing branches cannot do without external markets and sources of raw materials; thirdly, "capitalist enterprise inevitably transcends the boundaries of the village community, the local market, the territory and finally the state" [LW 3: 55], because the capitalists, in their pursuit of profit, tend to constantly expand production, which ultimately leads to the fact that every branch of industry must seek an external market.

Since the turn of the century, *Lenin had* closely followed the new phenomena in the economy of capitalism, the development towards monopoly and the associated intensification of all the contradictions of capitalism. The fruit of extensive studies on these questions (see [LW 39]) is his work "Imperialism as the Highest Stage of Capitalism" [LW 22: 189 ff].

With this book, *Lenin* created the doctrine of imperialism on the basis of a profound and all-round Marxist analysis of the capitalist world economy and its interrelations before the First World War. *Lenin* uncovered the economic essence of this new and special stage of capitalism: the replacement of free competition by monopoly. He showed that imperialism sharpened all contradictions to the utmost, and proved that

he rotting, dying capitalism, that it is the "eve of the social revolution of the proletariat" [LW 22: 198].

In this book *Lenin* also refuted *Kautsky's* idea of "ultra-imperialism", according to which development was heading towards a world monopoly, a world trust. *Lenin* rejected [111] *Kautsky's* assertion "that the rule of finance capital weakens the inequalities and contradictions within the world economy" as "ultra-nonsense" and showed that "in reality it *intensifies* them" [LW 22: 276].

If one wanted to try to apply *Lenin's* thoughts on this question to the subsequent history of the world capitalist economy, one can state that the development of world capitalism led, on the one hand, to a further internationalization of economic life and to a levelling of the world economy, on the other hand - and to an immeasurably greater extent - the same process of economic development produced an extreme intensification of antagonisms within the framework of the capitalist world economy, which was expressed in an increasing diversification and polarization of the world economy and in the formation of national groups ready to pounce on each other in arms at any moment (cf. [5: 21 ff.]).

Lenin's thesis that monopoly capital is the economic basis for the emergence of imperialist wars is still valid today. However, war is no longer inevitable. This thesis must be seen against the background of the changed world political situation. The socialist community of states in alliance with all anti-imperialist forces has created the possibility of putting a dam against the imperialist warmongers and saving humanity from a third world war. This statement also has great significance for world economic relations under present-day capitalism.

With her definition, *Rosa Luxemburg* also defined the object of research into the history of the capitalist world economy more precisely: "Capitalist production expands to all countries by not merely organizing them all economically in the same way, but by uniting them into a single great capitalist world economy ... In the first place, this means an immense extension of the domain of capital, a formation of the world market and the world economy, in which all the inhabited countries of the globe are producers and purchasers of each other's products, work hand in hand, are participants in one and the same earth-spanning economy. The other side, however, is the progressive impoverishment of ever wider circles of humanity on the globe and the progressive insecurity of their existence." [9: Vol. 5, 773 f.]

None of the bourgeois economists who dealt with the history of the capitalist world economy said exactly what it actually is. *Adolf Weber*, who published a book on the world economy in 1932, defined it as an "economy of overcoming space, for which distance has almost become a minor matter" [21: 3]. *Andreas Predöhl*, a leading economic theorist in the Federal Republic of Germany after the Second World War, understands the world economy as a "network of economic relationships ... which makes the individual economies of the world dependent on each other in their vital concerns", whereby the "far-reaching international relationships cannot be separated from the far-reaching intra-national relationships" due to the size of some national areas. [12] It is not far from this view to the view that denies the existence of a world economy at all. It is therefore not only of historical interest that *Rosa Luxemburg* was already grappling with this view. In response to *Sombart's* (1863-1941) assertion that individual economies are becoming ever more perfect microcosms and that the internal market for all trades is increasingly outstripping the world market in importance [15: 420], she replied: "This sparkling folly, which unabashedly flies in the face of all daily perceptions of economic life, underlines most happily that dogged aversion of the gentlemen guild scholars to the recognition of the world economy as a new phase in the development of human society - an aversion which we must well remember and whose hidden roots we must pursue." [9: Vol. 5, 539]

Assertions such as *Sombart's* have been made time and again - especially under the influence of the crisis phenomena of the capitalist world economy. It is therefore crucial for economic-historical research to always assume that the increase in international economic connections in the course of history - and thus also in the growth of international production relations - can take place in two ways. Firstly, the international connections can grow in breadth and encompass areas that have not yet been drawn into the vortex of capitalist life. In this case, we are dealing with an extensive growth of the capitalist world economy. Secondly, these connections can grow in depth, become denser and more concentrated. Then we have intensive growth. Concretely and historically, the growth of the capitalist world economy takes place simultaneously in these directions, whereby its extensive growth was mainly realized through the colonial predatory policies of the great powers.

The post-war discussion of international foreign trade problems was long dominated by the controversial thesis of a secular deterioration in the "terms of trade" for the commodity-producing countries. A minority of bourgeois economists held the view that the price relationship between raw materials and finished industrial products tended to improve in favour of the former, according to *Paley* [10] with regard to the assumed scarcity of industrial raw materials and *Papi* [11], who argued in favour of rising population and faster technical progress in the capitalist industrialized countries. The opposing position was based on existing United Nations statistics. A study from 1949 found that the price ratios between raw materials and foodstuffs and industrial products had fallen by 37% between 1876-1880 and 1949. [23] A second publication [24] pointed out that the purchasing power of an export unit of raw materials (for imported industrial products) at the beginning of the Second World War was only 60% of its value in the middle of the 19th century. The two best-known proponents of this thesis are *Singer* and *Prebisch*. The former argued that "technical progress in the production of food and raw materials in developing countries was expressed in price reductions" [14]. *Prebisch* argued similarly: "While the core countries kept all the benefits of their industrial development for themselves, the countries in the peripheral zones gave them some of the fruits of their own technical progress." [24] In 1958, more recent figures appeared which showed a further deterioration in the "terms of trade" for developing countries following the price boom for raw materials during the Korean War. [25] According to these figures, the price index for raw materials fell from 100 to 99 between 1953 and 1958, while the index for industrial products climbed from 100 to 107 during the same period. Marxist economists consider studies of the "terms of trade" to be very useful, especially when it comes to the concrete shaping of foreign trade relations. However, they are also of the opinion that an analysis of long-term shifts in the terms of trade can only lead to spurious results. Long-term terms of trade research blurs the results of structural changes in production, technological progress and growth in labor productivity. [16]

Long-term terms-of-trade research reflects the dilemma in which [113] bourgeois research into the history of the capitalist world economy finds itself. This dilemma is ultimately an expression of the crisis in which the system of the capitalist world economy itself finds itself. Monocultures, the fallow of immeasurable forces, crises with constantly recurring destruction of capital were a matter of course for the older bourgeois national economy, so that hardly anything was done to eliminate them. The classics of bourgeois economics did not expect the remedy to come from economic policy measures, but from automatic mechanisms such as the gold standard. Their successors concentrated on attempts at restoration without taking into account the structural changes that had occurred in the meantime. The bourgeois late classics (*Taussig, Haberler, Viner*) examined convertibility and liberalization (reduction of import quotas) in isolation from the other integration factors of the world economy and selected one or the other area for testing inadequate patent remedies.

Economic history research on the history of the capitalist world economy experienced a strong upswing after the founding of the world's first socialist state and especially after the emergence of the socialist world system.

The extraordinary political relevance of this research is beyond question. The names of *Eugen Varga* (USSR) and *Jürgen Kuczynski* (GDR) are representative of the many outstanding Marxist researchers who have rendered outstanding services to the study of the history of the capitalist world economy. *Varga* is regarded as the historian and theorist of the development of world capitalism in the first stage of the general crisis. His analysis of the crisis of the capitalist world economy between the two world wars remains unsurpassed to this day (see [17] [18] [19] [20]). In the spirit of *Rosa Luxemburg*, *Jürgen Kuczynski* has demonstrated in detail that the development of the capitalist world economy also means the "progressive impoverishment of ever wider circles of humanity on the face of the earth and the progressive insecurity of their existence" (see [3] [4] [5] [6]).

Today's capitalism - and this applies in particular to the capitalist system of the global economy - has become more complicated. The modern, extremely complicated economic life of capitalism has very different forms, behind which the capitalist relations of production are concealed. There are, for example, the movements of monetary capital (including free currency, gold exchange, euro-dollars, international banking syndicates), emigration and immigration as a transfer of labor, the transfer of part of the wages of emigrated workers to the home country, the founding of companies abroad and the transfer of profits, the profits of shipping and airline companies, license trading, etc. The capitalist world economy includes all forms of capitalism. The capitalist world economy includes all these economic phenomena, which are ultimately based on the relations of people in the production process.

In order to continue to work successfully in the future, the new generation of researchers needs a thorough knowledge of Marxism-Leninism, which can be acquired through intensive study of the classics. Particular attention should be paid to *Lenin's* reference to the historical approach, which is not only important for economic historians: "The whole spirit of Marxism, its whole system, demands that every thesis be considered only α historically; β only in connection with others; γ only in connection with the concrete experiences of history." [LW 35: 227]. [LW 35: 227]

It is precisely these concrete experiences of history that are at stake in researching the world economic history of capitalism! [114]

Literature:

- 1 *Kohlmey, G.*, in: Probleme der politischen Ökonomie 1962. vol. 5, p. 18 ff.; 2 *Ders.* in: Probleme der politischen Ökonomie 1970. vol. 13, p. 63 ff.; 3 *Kuczynski, J.*: Studien zur Geschichte der Weltwirtschaft. Berlin 1952; 4. *Ders.*: Geschichte der Lage der Arbeiter unter dem Kapitalismus. Vol. 1-38, Berlin 1960-1972; 5. *Ders.*: System gegen die Menschlichkeit. Berlin 1972; 6. *Ders.*: Die Krise der kapitalistischen Weltwirtschaft. Berlin 1976; 7. *Kuske, B.*: Die Bedeutung Europas für die Entwicklung der Weltwirtschaft. Cologne 1924; 8. *Langenbeck, W.*: Geschichte des Welthandels der Neuzeit. Leipzig n.d.; 9. *Luxemburg, R.*: Gesammelte Werke. Vol. 1-5, Berlin 1972-1975; 10. *Paley, W. S.*: Resources for Freedom. Report to the President's Material Policy Commission. New York 1952;
- 11 *Papi, G. U.*, in: Zeitschrift für Nationalökonomie 1954 (2-4), p. 251 ff.; 12 *Predöhl, A.*, in: Handwörterbuch der Sozialwissenschaften. Göttingen 1961, p. 604; 13. *Ricardo, D.*: Über die Grundsätze der politischen Ökonomie und der Besteuerung. Berlin 1959; 14. *Singer, H. W.*, in: American Economic Review. May 1950, p. 477 f.; 15. *Sombart, W.*: Die deutsche Volkswirtschaft im neunzehnten Jahrhundert. Berlin 1909; 16. *Vajda, I.*, in: JWG 1964, T. I, p. 122 ff.; 17. *Varga, E.*: Die Krise der kapitalistischen Weltwirtschaft. Hamburg 1922; 18. *Ders.*: Aufstieg oder Niedergang des Kapitalismus? Hamburg 1924; 19. *Ders.*: Die Wirtschaft der Niedergangsperiode des Kapitalismus nach der Stabilisierung. Hamburg/Berlin 1928; 20: The great crisis and its political consequences. Moscow/Leningrad 1934; 21 *Weber, A.*: Weltwirtschaft. Munich 1932; 22. *UNO*: Postwar Price Relations in Trade between Underdeveloped Countries and Industrialized

Countries. New York 1949; 23.

UN: Relative Prices of Exports and Imports of Underdeveloped Countries. New York 1949, p. 7;
 24 UNO: The Economic Development of Latin America and some of its Problems. New York 1949,
 P. 10; 25. UNO: Monthly Bulletin of Statistics. Vol. 12 (1956), 6, p. XIV.

Otto Bittmann

1.3.6. Trade history

The great and eventful history of trade has received a great deal of attention and has been presented in many different ways. In addition to multi-volume and single-volume treatises on the history of world trade and the history of trade in individual countries, there are presentations of trade history complexes in works of economic history and many, sometimes very in-depth studies of individual sections of trade history, of various notable highlights in the development of trade or of the history of individual branches or forms of trade. In addition, quite a few textbooks on the history of trade have been written, but with a few exceptions they are shallow and in some cases even lag behind a number of popular scientific presentations [91] [96] [133].

The historiography of trade began at the beginning of the 18th century. However, views and judgments on trade and evaluations of its bearers already existed in antiquity and the Middle Ages (see 2.2.5., 2.3.5., 2.4.10.). The first historians of trade were theoretically based on mercantilist positions or positions of Colbertism or cameralism. In the 18th century and the first decades of the 19th century, trade history was characterized by comprehensive accounts. From the point of view of trade and its history, the historians of commerce covered the entire history [115] of the economy and other areas of society in their works, e.g. the history of "shipping, trade, inventions, arts, crafts, manufactures, agriculture, police, serfdom, customs, coinage and mining, the arts of divorce, maritime law and the law of exchange, urban economy and luxury" [28].

In the mid-19th century, trade historians abandoned this position and restricted themselves to trade and its relationship to other areas of society. With this separation, the history of trade reached a remarkable peak. Thereafter, comprehensive accounts of the history of trade became rare, and mainly textbooks were produced. On the other hand, comprehensive economic historiography began, which also included accounts of trade history.

Since the emergence of trade history, special works on the history of trade in individual periods, regions or cities and on particular highlights have been written alongside general accounts. This has dominated bourgeois trade history, especially from the mid-19th century to the present day.

The first account of the history of trade is the work "Histoire du commerce et de la navigation des Anciens" by *Huet*, Bishop of Avranches [42], which was published anonymously in 1712 and commissioned by *Colbert* [101: 10]. The same author wrote further works on the history of trade, including the "Nachricht von der Handlung der Holländer und Portugiesen" (News of the Trade of the Dutch and Portuguese), commissioned by Louis XIV for the education of the Dauphin. [101: 11] *Huet* marked the beginning of the systematic writing of the history of trade and also of the study of economic history from the perspective of trade. Because of his great erudition, *Huet* was held in extremely high esteem by his contemporaries, but he was also criticized because he wrote this history of the trade and shipping of the ancients based only on his memory and observation, "constantly confusing trade and maritime affairs" and reporting "nothing of the object of the trade, the raw and processed goods with which the ancients traded". [101: 10 f.]

In 1751, the first comprehensive history of trade, the "Allgemeine Geschichte der Handlung und Schiffahrt, der Manufacturen und Künste, des Finanz- und Cameralwesens, zu allen Zeiten und bey allen Völkern" [101], was also published anonymously by a German author. According to *Schlözer* [100: 12], its author was a Silesian nobleman, according to *Berghaus* [7: VIII] the Berlin bookseller *Johann Peter Schmidt* and according to the handwritten entry in the work in the university library of the Karl Marx University of Leipzig, *Johann Peter Schmidt* (1708-1790) from Rostock.

must have been. His identity has not yet been proven either by his works or archives. In 7 sections and 42 chapters *Schmidt* outlines the history of trade from Egypt, Canaan, Syria and Phoenicia up to the late 17th and early 18th century. The author of this "Allgemeine Geschichte der Handlung ..." was a man with an extraordinarily remarkable view of history, who, after criticizing other historians for "dwelling more on tales of battles and miraculous events" than on the development of trade, states: "At all times it has been a contradictory excess of the human mind, that far more pains have been taken to perpetuate the memory of those who understood the art of exterminating men, than of those who possessed the science of preserving them, and providing them with all the necessities and comforts of life." [101: 12] Starting from this claim, *Schmidt* essentially confines himself to economic processes. His descriptions testify to a great historical understanding, even if - as *Schlözer* says - they are not free of "repetitions, prolixity and interpolations" [100: 12] and [116] no longer fully stand up to today's knowledge. Around the middle of the 18th century, interest in the history of trade increased and publications became more frequent. Treatises by *Reynal* [85] and *Struensee* [117], among others, appeared.

Another important history of trade was written by the Swede *August Ludwig Schlözer* in the 1950s. [100] In contrast to his predecessors, *Schlözer* endeavored to be extremely concise, precise and reliable in his descriptions and proved to be a good expert on all the literature of the time.

A. Anderson [2] published the most remarkable account of the 18th century, a well-founded work on the commercial history of England and the British Empire as well as the commercial history of other European states. The work was published several times as an almost unchanged reprint under the name of *David Macpherson* [65], who later modified and expanded it, especially up to the 1805 edition [108.2: 428]. And while *J. P. Schmidt* expressed his astonishment in 1751 that "neither a complete history nor a thorough system of commerce has ever been produced" [101: 10], *Anderson* spoke of an incomprehensibly stupid contempt for the history of commerce [2.1: XX] and indignantly repeated the opinion of a Portuguese historian "that commerce is an indecent subject for a serious history" [2.1: XXI].

In 1785 and 1792, two parts of the "Geschichte des teutschen Handels ..." ("History of German Trade ...") were published by *F. C. J. Fischer*, a cameralist from Halle. [28] *Fischer's* work, despite its many merits, was the first attempt at a systematic treatment of the history of German trade and other branches of the economy long before the first German economic history was written.

In the 19th century, the writing of trade history experienced a further upswing. And while in the first decades the main focus of works on the history of trade was on the development of trade, the history of trade, shipping, agriculture and commerce was presented together, as for example in the work by *G. v. Gülich* [31], which was consulted by *Marx* and *Engels*, in the book by *W. Hoffmann* [40], in the account by *F. H. Ungewitter*

[122] and in the work of *A. Nischwitz* [77], a new development began in German-language literature in the mid-19th century. With *Hermann Scherer* [98], *Johannes Falke* [27] and *Adolf Beer* [6], the history of trade - with a few exceptions - no longer stood as a collective term for more or less comprehensive accounts of economic history, but had truly become a study of the history of trade.

In *Scherer's* two-part "General History of World Trade" [98], the previous historiography of trade is systematically and soundly reviewed, reliably documented in its sources and intelligently interpreted. *Scherer's* work significantly surpasses the previous presentation of the history of trade and can be regarded as a standard work at the level of knowledge of the middle of the last century.

Adolf Beer directly follows *Scherer* in terms of content. His work, written over several decades "Allgemeine Geschichte des Welthandels" [6] is "a work written with great circumspection and thoroughness" [45: V] on the development of world trade from the ancient Orient to the 19th century.

Johannes Falke's two-volume history of German trade [27] is an outstanding treatise on German trade history, to which even the harshest bourgeois critic of trade history, *Werner Sombart* [108.2: 428 f.] 'takes a step back.

Apart from textbooks, no independent and comprehensive overviews have been published by German-speaking authors since *Beer*. They are also rare in other countries.

The most important complete work of bourgeois commercial historiography to date was produced at the Paris Institute of Commercial History. It is the six-volume "*Histoire du Commerce*" [135] published by *Jacques Lacour-Gayet* from 1950 to 1955 - a profound and very informative work despite its bourgeois limitations.

Hoffmann in 1830 [40] and *Nischwitz* in 1835 [77] marked the beginning of the presentation of commercial history for teaching purposes at commercial academies, commercial schools and secondary schools. This trend continued from the mid-19th century with books by *Engelmann* [25], *Kiesselbach*

[44] - whose ahistorical position of regarding capital as eternally existing was criticized by *Marx* [MEW 25: 339] - *Bücheler* [11], *Körner* [45], *M. G. Schmidt* [102] and others up to the 1920s with textbooks by *R. Mayr* [68], *Langenbeck* [60] and others. This literature provides a very generalized and in part superficial overview of the development of German and world trade and is written by commercial school and secondary school teachers.

Trade history is represented to varying degrees in works on economic history. It is particularly pronounced in the first German economic history by *K. Th. v. Inama-Sternegg* [43], which contains separate sections on the development of trade and transportation in all three volumes, but can also be found in *K. Lamprecht* [58] [59], *R. Kötzschke* [46] [47] and, among others, in *G. Neuhaus* [73], *J. Kulischer* [53], *Th. Mayer* [69], *H. Bechtel* [57], *A. Sartorius v. Waltershausen* [93] [94], *H. Proesler* [84].

At the beginning of our century, it was above all *W. Sombart* [108] [109] who - apart from his theoretical positions - also processed and presented trade-historical material in an extraordinarily critical manner. Sombart also passed the harshest judgment of all on the bourgeois historiography of trade. He speaks of those "basically worthless hodgepodge ... that frighten us as 'histories of trade'" and writes: "We do learn a lot of interesting things, ... We only learn nothing of commerce", i.e. "nothing of the peculiar relationships" that develop in and through commerce. [108.2: 429 f.] Even if the first part of this characterization is greatly exaggerated and unjustified, its last statement hits the core of the criticism to be made of bourgeois trade history from our point of view as well.

Trade historiography is characterized - beginning in the 18th century and increasingly since the 1970s - by an immense number of studies on individual sections of trade history, on specific events and trade routes, on trade and city alliances, on the trade of individual cities, on merchant families and individual merchants, on trade policy issues, on trade systems and forms of trade. This literature provides a precise and in some cases successful insight into the history of trade in a particular period in a particular region. Among the first works of this kind, alongside the works of *Huet*, are the "*Allgemeine Geschichte der ost- und westindischen Handelsgesellschaften*" by *Semmler* [105], *Ameilhon's* *Geschichte des Handels und der Schifffahrt Ägyptens* [1] *A. F. W. Crome's* remarkable attempt at a trade history of the countries between the Meuse and the Scheide [19], *J. F. G. Büsch's* *Hanseatic history of Hamburg* [13], *A. J. Anthoine's* "*Historischer Versuch über den Handel und die Schifffahrt auf dem schwarzen Meere*" [3] and especially the classic three-volume work on the history of the German Hanseatic League by *Georg Sartorius*, professor of history in Göttingen [92].

[118] In addition to the trade history of antiquity - e.g. in the well-founded work by *E. Speck* [113] - the development of trade in individual cities, markets and fairs, the history of the German Hanseatic League and the Upper German trading capitals have been the preferred subject of trade historiography up to the present day.

The historiography of the German Hanseatic League is extraordinarily extensive. For several decades, Hanseatic historical research had concentrated a large number of researchers who published works on the various aspects of the Hanseatic League's activities, especially in the *Hansische Geschichtsblätter*. After *Sartorius, F. Barthold* wrote his history of the German Hanseatic League in the middle of the 19th century [4]. Of the bourgeois historians of the Hanseatic League, *W. Stein*

[114] and *Ph. Dolinger* [21].

The history of the Upper German trading houses and corporations, the *Große Ravensburger Gesellschaft* and the history of the *Fugger*, *Weiser*, *Manlich*, *Haug*, *Tucher*, *Linck*, *Langnauer*, *Vöhl*, *Gossembrot*, *Rehlinger*, *Meuting*, *Herwart*, *Roth*, *Gienger*, *Scheler*, *Münzer* and others have found many literary representations. among others, have found many literary representations, for example by *W. v. Heyd* [37], *A. Schulte* [104], *W. Stein* [114], *R. Ehrenberg* [23], *A. Mayr* [66], *G. v. Pölnitz* [81] [82] [83].

In addition, important treatises of bourgeois German trade history have been written on various topics, including by *W. v. Heyd* on the Levant trade [36], by *A. Schaube* on the trade history of the Romanic peoples [97], by *W. Stein* on trade during the German imperial period [115], by *H. Simonsfeld* [107], *F. M. Mayr* [67], *A. Schulte* [103], *B. Borries* [10] and in recent decades by *M. Kutz* [55], *R. Renzing* [86], among others, as well as accounts by *H. Jankuhn*, *R. Sprandel*, *H. Kellenbenz*, *W. Zorn* and *H. Hassinger* (all in [133], among others).

At the end of the last century and the beginning of our century, after more capitalist forms of operation became established in the retail trade in Germany in the 1990s, a literature began to examine the retail trade and its capitalist forms of operation at that time, the department stores and chain stores, which mainly focused on the economic situation and business management issues, but also on the history of the retail trade and its forms of operation. The most important works are those by *P. Göhre* [30], *J. Hirsch* [38] and

J. Warnicke [125] and the relevant sections in *W. Sombart* [108] [109]. In the 1920s and early 1930s, this literature experienced a significant upswing under the conditions of monopolization in the retail trade, especially in connection with the work of the *Forschungsstelle für den Handel*, the *Hauptgemeinschaft des Einzelhandels* and the *Institut für Konjunkturforschung*, but also supported by representatives of commercial science and commercial history subjects at commercial colleges. The works of *E. Bielschowsky* [8], *H. Ehrlicher* [24], *R. Fischer* [29], *J. Hirsch* [38] [39], *H. Kramer* [48], *A. Lampe* [57], *R. Lisnik* and *H. Grünbaum* [64], *H. R. Mutz* [72], *R. Seyffert* [134], *W. Sombart* [109] [110], *A. Werner* [124] and *J. Warnicke* [125] are to be valued as a historical treasure trove, particularly because of the facts they contain. Further accounts of this kind were also produced in West Germany after 1945 by *R. Nieschlag* [74] [75] [76], *R. Seyffert* [106], *J. Tiburtius* [118], *H. Uhlig* [121] and others.

Marx and *Engels* completed the complicated process of theoretical clarification of trade, which had been going on since antiquity, and also gave the classic historical accounts and evaluations of trade. They can be found in many of their works, above all in *Marx's* "Grundrisse der Kritik der Politischen Ökonomie" and especially in a separate chapter in "Capital" [MEW 25], in the "Umrisse zu einer [119] Kritik der Nationalökonomie" [MEW 1], in "Deutscher Bauernkrieg" [MEW 7], in the supplement and addendum to Book III of "Capital" [MEW 2], and in the "Critique of National Economy" [MEW 3]. Capital" [MEW 25], in the "Anti-Dühring" [MEW 20], in "Zur Urgeschichte der Deutschen" [MEW 19], in "Der Ursprung der Familie, des Privateigentums und des Staats" [MEW 21] and in other works by *Engels*.

In his analysis of the development of capitalism in Russia [LW 31], *Lenin* also examined some historical aspects of trade and made fundamental historical statements about trade under imperialism in the "Notebooks on Imperialism" [LW 39].

In the USSR, as early as the 1920s and 1930s, works containing statements on the history of trade were produced as part of political economy studies of imperialism, as well as the book by *S. F. Tokmalayev* [119] with detailed historical facts and evaluations at the end of the 1940s. The analysis

of trade developments in the main imperialist countries has had a firm place in the scientific work of Soviet economists up to the present day (e.g. [112] [128]).

No comprehensive work has yet been written on the development of trade under socialism, but there are excellent, albeit brief, descriptions and assessments in the six-volume history of the CPSU [131] and independent sections on the history of trade in the USSR and other socialist countries in the work "History of the Socialist World Economic System" [132] as well as trade-historical considerations in economic history textbooks [120] [130].

In the GDR, too, historical and economic-historical works with sections and statements on the history of trade were published, as well as a number of specialized works on the history of trade. In his "General Economic History" [50], in his "Geschichte der Lage der Arbeiter unter dem Kapitalismus" [49] and in other books, *Jürgen Kuczynski* devoted a great deal of attention to the development, position and impact of commercial capital as well as the development of foreign trade and global economic relations. As early as 1935, *J. Kuczynski* published a work on world production and world trade in the last 100 years [51], and in 1947 he and *Grete Wittkowski* jointly published a treatise on German-Russian trade relations in the last 150 years [52].

Fundamental passages on the history of trade are contained in *Hans Mottek's* Economic History of Germany, especially in its first volume. [71]

The history of the Fuggers is dealt with in *A. Norden's* "Herrscher ohne Krone" [80]. The first Marxist-Leninist account of the history of the Hanseatic League was written by *J. Schildhauer*, *K. Fritte* and *W. Stark*. [99]

G. Bondi [9] and *S. Richter* [89] in particular have rendered outstanding services to research into the history of German foreign trade in the 19th century. A number of authors have written further treatises on various questions of trade history. The first independent account of the history of domestic trade in the GDR appeared in 1959 with the work of *W. Kunz* [54].

Since the end of the 1950s, a number of works on the history of trade have been produced at the Hochschule für Binnenhandel, then at the Karl Marx University and at the Handelshochschule Leipzig, among others.

a. by *W. Heinrichs* [33], *G. Fabiunke* and *O. Rennert* [26], *A. Dorner* [22] and *P. Heldt* [34] [35].

In the more than two and a half centuries since the emergence of trade history, bourgeois trade historians have compiled extensive material in a wide variety of fields and achieved outstanding achievements in source research. In doing so, they have primarily focused on individual merchants and merchant families, trade routes, trade goods and their quantities as well as the forms of trade, but less on social conditions and relationships. To very different extents, they researched and clarified the causes of a particular trade development and its social effects.

Only a small part of the material collected in the majority of works by bourgeois trade historians has been incorporated into comprehensive accounts of trade history.

It is an important concern of Marxist-Leninist trade history to systematically deepen, classify, evaluate and thus preserve this material.

Literature:

1 *Ameilhon*: Histoire du commerce et de in navigation des Égyptiens sous le Règne des Ptolémées. Paris 1766; 2. *Anderson, A.*: Historische und chronologische Geschichte des Handels von den ältesten bis auf jetzige Zeiten. 7 Tle., 7 Bde., Riga 1773-1779; 3. *Anthoine, A. I.*: Historischer Versuch über den Handel und die Schifffahrt auf dem schwarzen Meere. Weimar 1805; 4. *Barthold, F.*: Geschichte der deutschen Hanse. 3rd T., Leipzig 1854; 5th *Bechtel, H.*: Wirtschaftsgeschichte Deutschlands. 3 vols., Munich 1951, 1952, 1956; 6. *Beer, A.*: Allgemeine Geschichte des Welthandels. 3 Abth., Vienna 1860, 1862, 1864-1884; 7. *Berghaus, J. I.*: Handbuch für Kaufleute oder Enzyklopädie der vornehmsten Gegenstände der Handlungswissenschaft mit Rücksicht auf Politik, Geschichte und Literatur. 2 vols., Münster/Osnabrück 1796/97; 8. *Bielschowsky, E.*: Die Krise des deutschen Einzelhandels.

- Stuttgart 1933; 9. *Bondi, G.*: Deutscher Außenhandel 1815-1870. Berlin 1958; 10. *Borries, B.*: Deutschlands Außenhandel 1836-1856. Stuttgart 1870; 11. *Bücheler, C.*: Geschichte des Welthandels. Stuttgart n.d. (1867); 12. *Büsch, F. J. G.*: Land- und Seehandel. Hamburg 1795; 13. *Ders.*: Handels- geschichte Hamburgs. Hamburg 1796; 14. *Ders.*: Sämtliche Schriften. 16 vols., Vienna 1813-1818; 15. *Ders./Ebeling, C. D.*: Handelsbibliothek. 2 vols., Hamburg 1785-1789; 16. *Buse, G. H.*: Das Ganze der Handlung. 21 vols., Erfurt 1798-1821; 17. *Calwer, R.*: Handel und Wandel. 7 vols., Berlin/Jena 1901-1908; 18. *Cous, H.*: Precis d'histoire du commerce. 2 voi, Paris 1896; 19. *Grome, A. F. W.*: Handbuch für Kaufleute für die Jahre 1785 und 1786. 2 Th., 3 Bde., Leipzig 1787; 20. *Dithmar, J. G.*: Einleitung in die ökonomischen Policy- und Kameralwissenschaften. Frankfurt/M. 1769; 21. *Dollinger, Ph.*: Die Hanse. Stuttgart 1966; 22. *Dorner, A./Rennert, O.*, in: JWG 1977, T. II, p. 9 ff;
23. *Ehrenberg, R.*: Die Fugger in Rom 1495-1523. 2 vols., Leipzig 1904; 24. *Ehrlicher, H.*: Das Massensystem; die Voraussetzungen seiner Anwendbarkeit auf den Einzelhandelsbetrieb. Stuttgart 1933; 25. *Engelmann, J.*: Geschichte des Handels und Weitverkehrs. Leipzig 1859; 26. *Fabiunke, G./Rennert, O.*: Beiträge zur Geschichte des Binnenhandels der DDR von 1945 bis 1960/61. Leipzig 1975; 27. *Falke, J.*: Die Geschichte des deutschen Handels. 2 vols., Leipzig 1859/60; 28. *Fischer, F.*
- C. J.*: Geschichte des teutschen Handels, der Schifffahrt, Fischerey, Erfindungen, Künste, Gewerbe, Manufacturen, der Landwirtschaft, Polizei, Leibeigenschaft, des Zoll-, Münz- und Bergwesens, der Scheidekünste, des Seerechts und Wechselrechts, der Stadtwirtschaft und des Luxus. 2 Tle., 4 Bde., Hannover 1793-1797; 29. *Fischer, R.*: Die Konzentration im deutschen Warenhauswesen. Frankfurt/M. 1933; 30. *Göhre, P.*: Das Warenhaus. Frankfurt/M. 1907; 31. *Gülich, G. v.*: Geschichtliche Darstellung des Handels, der Gewerbe und des Ackerbaus der bedeutendsten handeltreibenden Staaten unserer Zeit. 5 vols., Jena 1830-1845; 32. *Heeren, A. H. L.*: Ideen über die Politik, den Ver- [121]kehr und den Handel der vornehmsten Völker der alten Welt. 2 vols., Göttingen 1793/1796; 33. *Heinrichs, W.*: Ökonomik des Binnenhandels in der DDR. Berlin 1962; 34. *Heldt, P.*: Grundriß der deutschen Handelsgeschichte. Leipzig 1962 (Diss.); 35. *Ders.*: Der deutsche Einzelhandel von 1924 bis 1933. Leipzig 1969 (Diss.); 36. *Heyd, W. v.*: Geschichte des Levantehandels im Mittelalter. 2 Bde., Stuttgart 1887; 37. *Ders.*: Die große Ravensburger Gesellschaft. Stuttgart 1890; 38. *Hirsch, J.*: Filialbetriebe im Detailhandel. Bonn 1913; 39. *Ders.*: Der moderne Handel, seine Organization und Formen und die staatliche Binnenhandelspolitik. Tübingen 1925; 40. *Hoffmann, W.*: Die Geschichte des Handels, der Erdkunde und Schifffahrt aller Völker und Staaten, von der frühesten Zeit bis auf die Gegenwart, mit Rücksicht auf die politischen Verhältnisse, die Zustände der Kultur, Industrie, des Gewerbewesens und der Landwirtschaft, nebst statistischen Übersichten und vier Tabellen. Leipzig 1847; 41. *Hübner, J.*: Handlungslexicon. Leipzig 1712; 42. *Huet, P. D.*: Histoire du commerce et de in navigation des Anciens. Paris 1712; 43. *Inama-Sternegg, C. Th. v.*: Deutsche Wirtschaftsge- schichte. 3 Tle., Leipzig 1879-1901; 44. *Kiesselbach, W.*: Der Gang des Welthandels und die Ent- wicklung des europäischen Völkerlebens im Mittelalter. Stuttgart 1860; 45. *Körner, F.*: Industrie- und Handelsgeschichte. Leipzig 1875; 47. *Kötzschke, R.*: Grundzüge der deutschen Wirtschaftsge- schichte bis zum 17. Jahrhundert. Leipzig/Berlin 1921; 47. *Ders.*: Allgemeine Wirtschaftsgeschichte des Mittelalters. Jena 1924; 48. *Kramer, H.*: Warenhausprobleme der jüngsten Zeit. Leipzig 1931;
49. *Kuczynski, J.*: Die Geschichte der Lage der Arbeiter unter dem Kapitalismus. 38 vols, Berlin 1961-1968; 50. *Ders.*: Allgemeine Wirtschaftsgeschichte. Berlin 1949; 51. *Ders.*: Weltproduktion und Welthandel in den letzten 100 Jahren. Liebau 1935; 52. *Ders./Witkowski, G.*: Die deutsch- russi- schen Handelsbeziehungen in den letzten 150 Jahren. Berlin 1947; 53. *Kulischer, J.*: Allgemeine Wirtschaftsgeschichte des Mittelalters und der Neuzeit. 2 vols., Berlin 1954; 54. *Kunz, W.*: Zehn Jahre Binnenhandel der DDR. Berlin 1959; 55. *Kutz, M.*: Deutschlands Außenhandel 1789-1834. Wiesba- den 1974; 56. *Lafauri*: Geschichte des Handels in Bezug auf politische Ökonomie. Stuttgart 1848;
57. *Lampe, A.*: Der Einzelhandel in der Volkswirtschaft. Berlin 1931; 58. *Lamprecht, K.*: Deutsche Geschichte. 12 Bde., Leipzig 1891 ff.; 59. *Ders.*: Deutsches Wirtschaftsleben im Mittelalter. 4 Tle., Leipzig 1886; 60. *Langenbeck, W.*: Geschichte des deutschen Handels. Leipzig 1918; 61. *Leitherer,*

E.: Geschichte der handels- und absatzwirtschaftlichen Literatur. Cologne/Opladen 1951; 62. *Leuchs, J. M.*: Ausführliches Handels-Lexicon. 2 vols., Nuremberg 1824-1826; 63. *Ders.*: System des Handels. 3 vols., Nuremberg 1804-1806; 64 *Lisnik, R./Grünbaum, H.*: Einzelhandel und Kreditgenossenschaften.

- Berlin 1930; 65 *Macpherson, D.*: Annals of commerce, manufactures and navigation. 4 Vol., London 1805; 66. *Mayr, A.*: Die großen Augsburger Vermögen 1618-1717. Augsburg 1931; 67. *Mayr, F. M.*: Die Anfänge des Handels und der Industrie in Österreich und die Orientalische Compagnie. Innsbruck 1882; 68. *Mayr, R.*: Lehrbuch der Handelsgeschichte. Vienna/Leipzig 1921; 69. *Mayer, Th.*: Deutsche Wirtschaftsgeschichte des Mittelalters und der Neuzeit. 2 vols., Leipzig 1928; 70. *McCulloch, J. R.*: A dictionary, practical, theoretical and historical of commerce and commercial navigation. London 1852; 71 *Mottek, H.*: Wirtschaftsgeschichte Deutschlands. A basic outline. Vol. 1, Berlin 1957; 72 *Mutz, H. R.*: Das Einheitspreisgeschäft. Berlin 1932; 73 *Neubaus, G.*: Deutsche Wirtschaftsge- schichte im 19. Jahrhundert. Munich 1907; 74. *Nieschlag, R.*: Die Versandgeschäfte in Deutschland. Berlin (West) 1949; 75. *Ders.*: Die Gewerbefreiheit im Handel. Cologne/Opladen 1953; 76. *Ders.*: Bin- nenhandel und Binnenhandelspolitik. Berlin (West) 1972; 77 *Nischwitz, A.*: Kurzer Abriß der Han- delsgeschichte. Leipzig 1835; 78. *Ders.*: Handels- und Industriegeschichte von der ältesten Zeit bis auf unsere Tage. Leipzig 1848; 79. [122] *Noel, O.*: Histoire du commerce du monde. 2 Vol., Paris 1891; 80. *Norden, A.*: Herrscher ohne Krone. Berlin 1974; 81. *Pölnitz, G. v.*: Jakob Fugger, Kaiser, Kirche und Kapital in der oberdeutschen Renaissance. 2 vols., Tübingen 1949/1951; 82. *Ders.*: Anton Fugger. 2 vols., Tübingen 1971; 83: Fugger und Hanse. Tübingen 1953; 84. *Proesler, H.*: Die Wirtschaftsgeschichte in Deutschland. Nuremberg 1928; 85. *Reynal*: Histoire de etablissemments et du commerce des Europeans dans les deux Indes, à la Haye. Paris 1774; 86 *Renzing, R.*: Die Handels- beziehungen zwischen Frankreich und Deutschland 1834-1871. Frankfurt/M. 1959 (Diss.); 87 *Resch, R.*: Die Aufeinanderfolge der Handelsherrschaften. Graz 1885; 88 *Ricardo, D.*: Über die Grundsätze der politischen Ökonomie und die Besteuerung. Bd. 1, Berlin 1959; 89 *Richter, S.*: Die Struktur des deutschen Außenhandels 1872-1892. Halle 1961 (Diss.); 90 *Richter, W.*: Handel und Verkehr der wichtigsten Völker des Mittelmeeres. Leipzig 1885; 91. *Roth, G.*: 3.000 Jahre Soll & Haben. Düssel- dorf/Wien 1969; 92. *Sartorius, G.*: Geschichte des Hanseatischen Bundes. 3 Tle., Göttingen 1800-1808; 93 *Sartorius v. Waltershausen, A.*: Deutsche Wirtschaftsgeschichte 1815-1914. Jena 1923; 94 *Ders.*: Die Entstehung der Weltwirtschaft. Jena 1931; 95 *Savary, J.*: Der vollkommene Kauff- und Handeismann. 2 vols., Geneva 1676; 96. *Schaal, H.*: Vom Tauschhandel zum Welthandel. Leipzig 1931;
- 97 *Schaube, A.*: Handelsgeschichte der romanischen Völker des Mittelmeergebietes bis zum Ende der Kreuzzüge. Munich/Berlin 1906; 98. *Scherer, H.*: Allgemeine Geschichte des Welthandels. 2 Tle., Leipzig 1852/53; 99. *Schildhauer, J./Fritze, K./Stark, W.*: Die Hanse. Berlin 1974; 100. *Schlö- zer, A. L.*: Versuch einer allgemeinen Geschichte der Handlung und Seefahrt in den ältesten Zeiten. Rostock 1761; 101 *Schmidt, J. P.*: Allgemeine Geschichte der Handlung und Schiffahrt, der Manu- facturen und Künste, des Finanz- und Cameralwesens, zu allen Zeiten und bey allen Völkern. Breßlau 1751; 102 *Schmidt, M. G.*: Geschichte des Welthandels. Leipzig 1906; 103. *Schulte, A.*: Geschichte des mittelalterlichen Handels und Verkehrs zwischen Westdeutschland und Italien unter Ausschuß von Venedig. 2 vols., Leipzig 1900; 104 *Ders.*: Geschichte der großen Ravensburger Handelsgesell- schaft 1380-1530. 3 vols., Stuttgart/Berlin 1923; 105 *Semmler*: Allgemeine Geschichte der Ost- und Westindischen Handelsgesellschaften. Halle 1764; 106. *Seyffert, R.*: Wirtschaftsleben des Handels. Cologne/Opladen 1951/52; 107. *Simonsfeld, H.*: Der Fondaco dei Tedeschi. 2 vols., Stuttgart 1887; 108. *Sombart, W.*: Der moderne Kapitalismus. 3 vols, 2nd ed., Munich/Leipzig 1916, 1917, 1927; 109. *Ders.* in: Probleme des Warenhauses. Berlin 1928; 110. *Ders.* in: Die deutsche Volkswirtschaft im 19. Jahrhundert. Munich/Leipzig 1924; 111. *Smith, A.*: An Inquiry into the Nature and Causes of the Wealth of Nations. Vol. 2, Berlin 1963; 112. *Sorokina, V. F.*: Vnutrennjaja tor- govlja Anglii. Moscow 1972; 113. *Speck, E.*: Handelsgeschichte des Altertums. 3 vols., Leipzig 1900- 1906; 114. *Stein, W.*: Beiträge zur Geschichte der Deutschen Hanse bis um die Mitte des 15. Jahrhun- derts. Gießen 1900; 115. *Ders.*: Handels- und Verkehrsgeschichte der deutschen Kaiserzeit. Berlin 1922; 116 *Stracke, K.*: Handelsgeschichte. Stuttgart 1914; 117. *Struensee*: Kurzgefaßte Beschrei- bung der Handlung der vornehmsten europäischen Staaten. 2 vols., Liegnitz 1778/79; 118. *Tiburtius, J.*: Lage und Leistungen des deutschen Handels in ihrer Bedeutung für die Gegenwart. Berlin (West)/Munich 1949; 119. *Tokmalajew, S. F.*: Handelskapital und Handelsprofit. Berlin 1952; 120. *Cuntulov, V. T.*:

Ekonomičeskaja istorija SSSR. Moscow 1969; 121 *Uhlig, H.*: Die Warenhäuser im dritten Reich. Cologne/Opladen 1956; 122. *Ungewitter, F. H.*: Geschichte des Handels, der Industrie und

der Schifffahrt, von den ältesten Zeiten an bis auf die Gegenwart. Leipzig/Meissen 1844; 123 *Veit, L.*: Trade and change with the whole world. Nuremberg 1960; 124 *Werner, A.*: 25 years of Edeka. Berlin 1932;
 125 *Wernicke, J.*: Das [123] Waren- und Kaufhaus, Leipzig 1926; 126 *Ders.*: Warenhaus, Industrie und Mittelstand. Berlin 1911; 127. *Yeats, J.*: The growth an vicissitudes of commerce. London 1887;
 128 *Zagladina, S. M.*: SŠA: obraćenie tovarov i uslug v èkonomike. Moscow 1975; 129. *Zincke, G. H.*: Anfangsgründe der Cameralwissenschaften. Leipzig 1755; 130. *Èkonomičeskaja istorija socialis- tičeskich stran*. Moscow 1971; 131st *History of the Communist Party of the Soviet Union*. 6 vols, Moscow 1971-1976; 132 *History of the Socialist World Economic System*. Vol. 1, Berlin 1970;
 133 *Handbook of German economic and social history*. 2 vols., Stuttgart 1971/1976; 134. *Handbook of the retail trade*. Stuttgart 1932; 135th *Histoire du Commerce*. 6 vols, Paris 1950-1955.

Peter Heldt

1.3.7. Industrial history

As a branch of economic history, industrial history is concerned with the formation and development of the most mature stage of non-agricultural production.

The concept that people have had of industry throughout history has influenced the subject and representation of industrial history. Until the beginning of the 19th century, industry was considered "a symbol of the pursuit of moral, cultural and economic progress" [5: 57]. During the 19th century, the definition of content that was given in Brockhaus' *Konversationslexikon* in 1824 and which defined industry as "the expression of force that transforms an original substance into another form, whereby the same becomes a means of enjoyment" prevailed. [36: Vol. 5, 58]

In 1884 *Engels* still understood the meaning of the concept of industry in this general sense when he wrote: "Civilization - the period of learning the further processing of natural products, of industry proper and of art." [MEW 21: 35]

Such a view of industry formed the basis for the periodization of industrial history that *Marx* and *Engels* undertook on various occasions. In 1892, *Engels* wrote the introduction to the English edition of "The Development of Socialism from Utopia to Science":

"We divide the history of industrial production since the Middle Ages into three periods: 1. craftsmanship ...; 2. manufacture ...; 3. modern industry ..." [MEW 19: 526]

With the spread of large-scale mechanical production in industry, this comprehensive concept is becoming less common. In the lexical works of our day, industry is understood to mean large-scale mechanical production aimed at the extraction of natural resources or the further processing of materials already created by human labor. [34: 379]

Since the 20th century, historians have increasingly followed the narrowed use of the concept of industry, but without satisfactorily filling the resulting definitional vacuum. The designation of modes of operation in non-agricultural production that cannot be assigned the term "craft" remains unsatisfactory if the breadth of the concept of industry as used by *Marx*, *Engels* and *Lenin* [LW 3: 558] is dispensed with.

In more recent historical accounts, the concept of industry can be found in connection with textile production, glass manufacture or the production of luxury goods as soon as the 18th or early 19th century comes into the authors' field of vision, [124] although the material and technical basis of the aforementioned production remained unchanged compared to earlier centuries for which these authors used the concept of industry. In general, the concept of trade is used very differently in historical literature. Some authors contrast trade and industry or crafts and trades. Others regard trade as a stage of non-agricultural production characterized by the division of labour and the exchange of production or the production of goods. Finally, others see industrial production as a phase of the reproduction process located between the extraction of raw materials and circulation.

For the Marxist historian, there is no reason to limit the concept of industry to large-scale industry.

The genesis of industrial production has been treated by many authors. Their theoretical and methodological approach was very different. A large number of authors were guided by the historical material in order to arrive at an accurate picture of the beginnings of industry in the individual branches of non-agricultural production or in the individual regions. One example of these authors is *Alfred Doren*, who at the beginning of our century wrote a study of the Florentine wool industry from the 14th to the 16th century, thus depicting one of the early manifestations of capitalist industry. [4]

A few years earlier, *Michael Tugan-Baranovsky* traced the history of Russian industry before 1861. [26]

In his general economic history of the Middle Ages and modern times, *Josef Kulischer* offered an overview of the history of the emergence of industry in Europe. [16]

Recently, historical works have been published that deal in detail with the operating methods from the industry's early days, the publishing house and the manufactory. [6] [12]

The historical accounts are extremely strongly influenced by the views of the economists who dealt with the theoretical problems of the development of capitalism.

The twelfth chapter of *Marx's* main work "Das Kapital" [MEW 23: 356 ff.], which is embedded in the great analysis of the capitalist mode of production, occupies a prominent position in the scientific assessment of the period of capitalist industrial production preceding the Great Industry. The statements made here are based on this analysis on the one hand and shed light on the historical development of capitalism on the other. That is why this chapter is of such fundamental importance for the period of industrial history in question.

Following *Marx's* theoretical statements, *Lenin*, in a detailed study of the "Development of Capitalism in Russia" devoted a great deal of space to the industrial history of his country since the peasant liberation reform. [LW 3: 391 ff.]

This account, because it represents the unity of political economy and detailed historical analysis, is not only important for the understanding of 30 years of Russian industrial history, but also of extraordinary theoretical and methodological significance for the entire historiography of industry.

In the 19th century and even in the first decades of the 20th century, bourgeois economists, especially representatives of the so-called younger historical school of economics, paid great attention to the industrial modes of operation that emerged with the penetration of capitalism into non-agricultural production. In this context, the work of *Karl Bücher* should be emphasized, who summarized the results of his work in 1927 in the *Handwörterbuch der Staatswissenschaften*. [2: 967 ff.] His systematization of the forms and methods of industrial production in publishing and manufacturing, as well as the terms he introduced for them, were widely used in bourgeois historical accounts.

The extensive literature dealing with the history of non-agricultural production makes it possible to determine the circumstances under which this production took on an industrial character.

The emergence of industrial forms of non-agricultural production is linked to the transition from household and simple commodity production to capitalist commodity production. The subjugation of producers engaged in household production and simple commodity production to capital was the basic condition for the emergence of industry. This, in turn, presupposed the existence of commercial capital and the conditions that incentivized this capital to penetrate the sphere of production.

These conditions included above all the existence of a sufficient number of free workers, "free in the double sense that as a free person he disposes of his labour power as his commodity, that on the other hand he has no other commodities to sell, is free and single, free of all things necessary for the realization of his labour power" [MEW 23: 183].

The production conditions in the various non-agricultural branches played a major role. In particular, branches that showed an internal division of labour very early on and in which there were production sections with a low technical level, which, if an expansion of production was to take place, required a growing number of workers under a uniform command, or branches that made great demands on the technical quality or the scope of the means of production, first came into the field of interest of merchant capital, because the simple commodity producers were economically unable to meet the requirements arising from the production conditions when expanding production. In addition, there were a number of other conditions that interested merchant capital in non-agricultural production.

The immaturity of the cooperative organization of the crafts in various branches or areas, through which no or no effective resistance to the emerging industry could be mobilized, was significant for the scope of commercial capital penetrating into non-agricultural production. An economic policy of public authority conducive to industrial production was also of great importance for the development of capitalist industry.

It follows from all this that in some regions of Europe the conditions for the emergence of industrial production were already in place in the 14th century and that in these regions an industry actually existed in individual branches of non-agricultural production, albeit germinating and not lasting. From the 16th century onwards, the continuous development of industry took place in the various branches and areas on the material and technical basis of craftsmanship.

The publishing house was the most widespread form of industrial production and centralized manufacturing was the most mature.

Craft production and domestic production thus grew into industrial production when the ownership of the conditions of production was socialized by commercial capital in a capitalist manner and the potentials of a deepening of the division of labour within the work processes inherent in the [126] fully developed craft of the feudal period were released. The medieval crafts thus constituted a period of non-agricultural production that prepared the ground for industry.

Technical production conditions for certain products and the commodity economy in the slave-owning society led to larger workshops in some non-agricultural branches (ceramics production, shipbuilding), in which there was an internal division of labor. Some monastic economies in mature feudalism are known to have had such a division of labor in textile production. The prevailing conditions of production and exploitation in the workshops and in society did not allow the industrial organization of individual work processes to become an industry. The annexation of the forms and methods of industrial production brought about by capitalism by feudal lords in the 17th and 18th centuries must be viewed somewhat differently. This was already an industry, even though it still rested on a feudal, but mostly on a semi-feudal basis.

Generally speaking, it can be said that during the transition to capitalism, non-agricultural production took on an industrial character under two corresponding conditions. Industrial production came into being with the transformation of simple production into capitalist commodity production, and it appeared when the division of labour within a production unit had developed to such an extent that the workers employed in it no longer necessarily had to carry out all the labour operations involved in this labour process, i.e. when the labour process had already been socialized to a certain degree.

In the 1960s, the English cotton industry underwent a revolutionary change that marked a new period in the history of industry. In the process

This change was accompanied by large-scale machine production in industry, initially in individual sectors and eventually in industry as a whole.

Historical and economic journalism deals extensively with this process of transformation, for which *Engels* popularized the term industrial revolution in German-language literature. [MEW 2: 237]

An early examination of the technical side of the industrial revolution can be found in contemporary technological literature. In a history of technology, *Johann Heinrich Moritz Poppe* drew attention to the innovations that had found their way into the textile industry in the form of the production machine and, in describing the technical details, also provided information on the changed position of labor in the system of productive forces and on the increased productivity of labor. [21]

In 1844, *Engels* published a short history of the revolutionary upheaval of the productive forces in the textile industry in England and linked it to her general assessment of the genesis of capitalism. [MEW 2: 237 ff., 360 ff.]

Engels' analysis of the industrial revolution was reflected in the "Communist Manifesto" [MEW 4: 463] and generalized in Marx's work "Das Kapital" [MEW 23: 391 ff].

In the second half of the last century, bourgeois historians and economists devoted more attention to the beginnings of large-scale industry. *Arnold Toynbee*, who wrote an account of the industrial revolution in England in 1884, stands out among them. [25]

Interest in the problems of the industrial revolution remained alive in our [127] century. However, individual aspects of this industrial upheaval moved to the forefront at times.

In the 1950s and 1960s, the theoretical debate on the nature and course of the industrial revolution was revived. There were various reasons for this. These included the emergence of the scientific and technological revolution, the ideological debate between capitalism and socialism and, last but not least, the work on overall economic history. [30]

There was an extensive exchange of opinions between Marxist economic historians in the socialist countries. In the GDR, the discussion on the criteria and periodization of the industrial revolution was led primarily by *Hans Mottek* [35] [17], *Jürgen Kuczynski* [13] [15] and *Wolfgang Jonas* [13: 144 ff.] *Wolfgang Jonas* aptly outlined the nature and course of the industrial revolution in 1974 in Theses. [11: 273]

The following are extraordinarily remarkable: the work of a Soviet historian collective in the publication

"The present scientific-technical revolution" on this subject. [29] After analyzing the historical material, the authors come to the conclusion that the industrial revolution is the unity of a technical and a production revolution. The production revolution is understood as a process "which, on the basis of new technical means, gives rise to a mode of production characterized by a new division of labour, a new position of producers and new social relations in production, i.e. by a new social structure of society" [28: 47].

Although great progress has been made in the theoretical debate on the industrial revolution, it must be noted that the concrete course of this upheaval in the countries whose capitalist development took place later has not yet been studied in sufficient detail and that a uniform view of it has not yet been formed everywhere. This also applies to the history of the industrial revolution in Russia. The phase of industrial history following the industrial revolution has been much less researched theoretically. The historical accounts that deal with the first reconstruction of the machine-based industries that emerged during the industrial revolution have not yet

The works that deal with large-scale production and the general expansion of large-scale industry are essentially limited to describing this process. For the most part, they are embedded in general overviews of economic history. Of the bourgeois authors, *Josef Kulischer* [16], *Hans Hausscherr* [7] and *Wolfgang Zorn* [27] should be emphasized. In 1931, *Walter Hoffmann* attempted to make generalizations by identifying periods, stages and types of industrialization. [9]

Marxists have examined individual fundamental problems of industrial development in the period of the full development of free competition capitalism. On the basis of Marx's theory of the production of relative and absolute surplus value, *Jürgen Kuczynski* has examined and described the changes in the capitalist methods of production and exploitation in the industry of several countries in the middle decades of the 19th century. [14: Vol. 2, 175 ff; Vol. 24, 132 ff; Vol. 29, 154 ff, 240 ff; Vol. 33: 36 ff]. *Hans Mottek* and his students traced the industrial history of Germany both as a whole and in key branches. [17] [18]

Industrial history was slow to follow the monopoly capitalist stage of industrial development.

The historians ideologically associated with monopoly capitalism avoided [128] a scientific study of industry in the decline stage of capitalism from the outset. Historians interested in shedding light on the industrial history of this period must solve theoretical and methodological problems that did not yet play a role in the preceding industry.

The increasingly diverse technical production conditions of industrial production, which are changing rapidly as a result of scientific and technological progress, make it difficult for the historian to gain and maintain a complete overview of the entire industry or even of individual industrial sectors. However, a secure knowledge of the material-technical basis of industrial production is the most important prerequisite for understanding the changes in capitalist production relations and for the "development of an apparatus for the social regulation of the production process and the distribution of products by the banks and the capitalist associations" [LW 24: 459, 470].

The increasing socialization process in industry on the basis of scientific and technological development, which is expressed above all in a concentration and centralization of production and capital in the traditional branches and in the new branches of industry that emerge as monopolistic from the outset on the basis of the capitalist use of scientific discoveries and inventions, poses new challenges for the writing of industrial history. But they also arise from the increasing interdependence between industry and other sectors of the economy, from the merging of industrial and banking capital into finance capital and from the unification of the power of the monopolies with the power of the capitalist state.

The difficulties associated with this are reflected in the literature on industry under monopoly capitalism. The historical accounts are characterized by the treatment of individual aspects of industrial development. Marxist authors have examined the monopolization processes in industry in detail. It can be observed that the substantive and methodological content of Lenin's work "Imperialism as the Highest Stage of Capitalism" [LW 22] has not been exhausted. Only a few historical monographs take into account the totality of the conditions that caused the emergence of monopolies in industry. [18] [19]

The majority of works have dealt with the phenomena of monopolization, the quantitative side of corporate concentration, the establishment and operation of monopoly associations, the mechanism of market dominance, etc., without including the causes of such phenomena arising from changes in the material-technical conditions of production, and without working out their influences on the forms and methods of monopolization in industry.

The role of the industrial monopolies and their representatives in endangering humanity was described in detail in Marxist historiography.

The Great October Socialist Revolution marked the beginning of a new period in industrial history. The changes in the political balance of power in the USSR and the other socialist countries created the conditions for the full development of large-scale mechanical production in the process of socialist socialization.

The literature on the historical development of socialist industry is diverse and is growing in breadth and depth. The role of the communist and workers' parties in the socialist countries in the development and realization of industrial policy has been researched most carefully to date. The six-volume history of the CPSU stands out among the works that [129] deal with this decisive aspect of industrial history. [31] It opens up Lenin's wealth of ideas on the importance of large-scale industry for socialist construction and conveys a picture of how the political leadership of Soviet society created the theoretical foundations of socialist industrial policy.

The course of industrial development in the socialist countries became a central theme in the literature on the history of socialism, in line with the importance of industry for socialist society. [1] [3] [10] [20] [22] [23] [24] [32]

One of the first overviews of USSR industrial history was provided by the Soviet Encyclopaedia. [29: Vol. 1, 819]

The special industrial history literature had primarily focused on industrial development in individual periods of the transition period to socialism, the various industrial sectors and the selected industrial regions. The particular focus of industrial historiography was the socialist reconstruction of industry, especially the path of industrialization necessary for most countries. Soviet historians published a wealth of monographs, collections of documents and statistical works on this subject. Recently, works on the historical literature on socialist industrialization have increased.

Historical publications on industry in the period of the formation and completion of the developed socialist society are available in the USSR. The preparation of Soviet industry for the defense against imperialist aggression and the role of industry in the defeat of fascism were described in detail.

Of particular importance in the historiography of industry are the writings on the development of socialist factory collectives. They provide meaningful and detailed material on the history of socialist industry as a whole.

Historians are beginning to examine the influence of socialist economic integration on industry in the individual countries of the socialist community of states. This field of work will become increasingly important in the coming years.

Many of the overviews and specialized works stop at describing industrial development under socialism. The historians who deal with industrial history are only tentatively penetrating the overall process of this development and still raise too few of the theoretical questions that exist in socialist industrial history. Of great benefit to industrial historians are the remarkable advances that have recently been made in researching the history of science and technology and the history of the working class under socialism. The work of historians and sociologists on the development of the industrial workforce, in which the structure and qualification level of industrial workers and their creativity in socialist competition and innovation are analyzed, has had a particularly stimulating effect.

To summarize, the subject of industrial history can be defined as follows:

Industrial history is concerned with the formation and further development of industrial production in capitalist and communist society. It presents the concrete

historical investigation of the dialectical relationships between the two sides of the mode of production, the process of labor and valorization or value formation in industry.

[130] The historical analysis of the industrial labor process deals with both the elements of the material-technical basis (raw material resources, work objects, production instruments and facilities) and the regularities in the interaction of these elements as well as with the adaptation of the structure and the cultural-technical level of the workers, engineers and scientists employed in industry to the material-technical production conditions. Industrial history works out the creative role of industrial producers in shaping the work process. Starting from the historical analysis of the labour process, industrial history examines the changes in the social relations that people enter into with each other in industrial production, the conditions under which the working class and the scientific-technical intelligentsia produce in industry, and the repercussions of these production relations, characterized by the capitalist or socialist ownership of the production conditions, on the industrial labour process. In doing so, industrial historians focus on the effects of economic laws in the history of capitalist and socialist industry.

The subject of industrial history also includes research into the interrelationships between the branches of industry and between industry and other sectors of the economy.

Finally, industrial history research is concerned with the dialectic between industrial development and the social superstructure. Especially with the emergence of the socialist social order and the associated overall social management and planning of industrial production, which is determined by the striving for an ever better satisfaction of the material and cultural needs of the people, the social superstructure is becoming increasingly important for industrial development.

Literature:

1 *Birta, I.*: Die Ergebnisse und Probleme der sozialistischen Industrialisierung im Zeitraum des ersten Fünfjahrplanes. Budapest 1972; 2. *Bücher, K.*: Gewerbe, in: Handwörterbuch der Staatswissenschaften. 4th ed., 4th vol., Jena 1927; 3. *Chyba, H./Barvik, J./Kotlaba, M.*: Die Entwicklung der tschecho-slowakischen Wirtschaft und die Wirtschaftspolitik der KPTsch. Prague 1971; 4. *Doren, A.*, in: Studien aus der Florentiner Wirtschaftsgeschichte. Vol. 1, Stuttgart 1901; 5. *Eulen, F.*, in: Schriften zur Wirtschafts- und Sozialgeschichte. Vol. 11, Berlin 1967; 6. *Forberger, R.*: Die Manufaktur in Sachsen vom Ende des 16. bis zum Anfang des 19. Jahrhunderts. Berlin 1958; 7. *Haussherr, H.*: Wirtschaftsge- schichte der Neuzeit vom Ende des 14. bis zur Höhe des 19. Jahrhunderts. Weimar 1954; 8. *Hobs- bawm, E. J.*: Industrie und Empire 2. britische Wirtschaftsgeschichte seit 1750. Frankfurt/M. 1969; 9. *Hoffmann, W.*, in: Probleme der Weltwirtschaft. Schriften des Instituts für Weltwirtschaft und See- verkehr an der Universität Kiel. Vol. 54, Jena 1931; 10. *Jeziarski, J.*: Die Wirtschaftsgeschichte Volks- polens in den Jahren 1944-1968. Warsaw 1971; 11. *Jonas, W.*: Thesen zum Wesen der Industriellen Revolution, in: JWG 1974, T. II; 12. *Krüger, H.*: Zur Geschichte der Manufakturen und der Manufak- turarbeiter in Preußen. Berlin 1958; 13. *Kuczynski, J.*: Studien zur Geschichte des Kapitalismus. Berlin 1957; 14. *Ders.*: Die Geschichte der Lage der Arbeiter unter dem Kapitalismus. 38. vol., Berlin 1960 ff.; 15. *Ders.*: Vier Revolutionen der Produktivkräfte. Theory and comparisons. Berlin 1975; 16. *Kulischer, J.*: Allgemeine Wirtschaftsgeschichte des Mittelalters und der Neuzeit. 2 vols., Berlin 1954; 17 *Mottek, H.*: Economic History of Germany. A basic outline. Vol. 2, Berlin 1964; **[131]** 18. *Mottek, H./Becker, W./Schröter, A.*: Wirtschaftsgeschichte Deutschlands. A basic outline. 2nd ed., vol. 3, Berlin 1975; 19. *Mühlfriedel, W.*, in: Freiburger Forschungsheft D 62. Geschichte der Produktiv- kräfte. Leipzig 1970; 20. *Müller, H./Reissig, K.*: Wirtschaftswunder DDR. A contribution to the history of the economic policy of the Socialist Unity Party of Germany. Berlin 1968; 21. *Poppe, J.*

H. M.: History of technology from the restoration of science to the end of the 20th century 18. century. 3. vol., Göttingen 1807 ff.; 22. *Prucha, V., et al.*: The economic history of the

Czechoslovakia in the 19th and 20th centuries. Bratislava 1974; 23 *Russinov, S.*: Economic Development of Bulgaria after the Second World War. Sofia n.d.; 24. *Schirendyb, B.*: Die Mongolische Volksrepublik von der Feudalordnung in den Sozialismus. Berlin 1971; 25 *Toynbee, A.*: Lectures on the industrial revolution in England. London 1884; 26. *Tugan-Baranowsky, M.*, in: Sozialgeschichtliche Forschungen V/VI, Ergänzungshefte zur Zeitschrift für Sozial- und Wirtschaftsgeschichte. Berlin 1900; 27. *Zorn, W.*: Ein Jahrhundert deutsche Industrialisierungsgeschichte. Blätter für deutsche Landesgeschichte, 108. Wiesbaden 1972; 28. *Autorenkollektiv*: Die gegenwärtige wissenschaftlich-technische Revolution. A historical investigation. Berlin 1972; 29. *Encyclopedia of the USSR*. Berlin 1950; 30. *European Economic History in four volumes*. Stuttgart/New York 1976 f.; 31. *History of the Communist Party of the Soviet Union in six volumes*. Vol. 3 ff., Moscow 1971 ff.; 32. *History of the Socialist Economy in the USSR in seven volumes*. Moscow 1976 ff.; 33. *Industrialization of the USSR*. Moscow 1975; 34. *encyclopedia of economy/industry*. Berlin 1970; 35. *Mottek, H./Blumberg, H./Wutzner, H./Becker, H.*: Studien zur Geschichte der Industriellen Revolution in Deutschland. Berlin 1960; 36 *Real Enzyklopädie oder Conversationslexikon*. 6th ed., 10 vols., Leipzig 1824, and 4 vols. new series, 1822-1826.

Wolfgang Mühlfriedel

1.3.8 History of mining

The history of mining has the task of tracing man's efforts to appropriate mineral resources and must therefore begin with the Neolithic stages, when the search for fire- ing and colored earths (red chalk, ochre) took on mining forms. For the mining and processing of metals, it has the task of shedding light on the archaeological findings through analytical interpretation. Significant progress has been made in this field in recent decades. [22]

[45] [76] [83] [84] [99] At the same time, the aesthetic function of the metals in the history of mining must be recognized in terms of cultural history, as must the social position of the miners and smelters, who in a broader sense also included glassmakers, charcoal burners and other suppliers who later became the formed a "mining kinship".

In antiquity, the first treatise on economic theory was written in the mining sector (see 2.3.2.). Otherwise, in antiquity as in the Middle Ages, historians were content to include events in the mining sector in general historical accounts or in annual directories. There was no need for a mining history. The only exception is the topography of deposits in Arabia by *al-Hamdānī* [33].

It was only when the mining sciences were elevated to a separate discipline with a methodical-systematic character from 1530 onwards that it became clear that the special nature of mining [132] also had to be traced in the historical process. The Alsatian land and mining judge *Johann Hubinsack* [40] made a first attempt in 1545. Meanwhile, *Georgius Agricola* (1494-1555) was already working in Chemnitz on his shortest work [1], which laid the foundation for the historiography of mining [115].

The combination of scientific interests and historical methods, typical of many humanists, also led *Agricola* to concern himself with mining in the past. For him, the history of mining was a practical science that was intended to provide guidance for mining activities and not just to create a "sense of comfort in the past". He thus created the first modern specialist historical study since the days of antiquity alongside the great work of *Vergilius Polydorus* (1460-1545), which dealt with the "History of Inventions" [90]. This account, which had been distributed in 20 editions since 1499, impressed and influenced *Agricola*, but he did not see knowledge of technical innovations as his ultimate goal. Since he expected the facts of mining history to be applicable to economic life, he was interested in economic questions. In 1546, the short, scientific sketch as part of a geographical, historical and scientific "survey of the globe" characterized as many as 350 mining towns in Europe, Asia, America and Africa at the time of their heyday and according to the type of metal they produced - and to the exclusion of the legends. He used the "short report", which was compiled like a card index, to distinguish himself.

for each mining location in ancient and modern times and assessed its importance by noting the productivity of the deposit. *Agricola* [21] thus offered the best possible overview of the general historical situation of the mining industry and its changes with the means and knowledge available at the time. He did not hold back in his criticism of historical traditions and, where necessary, used scientific arguments to refute false reports. He largely dispensed with the literary presentation of dramatic events in the course of local history, but outlined special features and created a concentrate of facts strung together by means of pure factual reports, so that a kind of statistic was created when he established mining history as new scientific territory.

It should be discussed whether *Sebastian Münster* had a certain priority. [77] In 1544, the Basel professor of Hebraistics and Mathematics expressly dedicated the 14th chapter of the 1st book of his "Cosmography" to the history of mining. The clear emphasis on this topic shows once again the truly global and comprehensive conception of the great humanist. *Münster* claims to have been inspired by *Agricola*. *Münster's* move was momentous, as it not only brought *Hubinsack* onto the scene, who was also confronted with problems of inter-ethnic exchange in the Alsatian border region. Rather, his successors have largely followed in his footsteps in general history as well. The specific history of mining initially took a different turn. *Johannes Mathesius* (1504-1562) published a local history after a long life in the mining town of St. Joachimsthal. [65] In his attempt to separate out the facts, he found a rather interesting aspect for economic history: he conceived of the local chronicle, which dispensed with a "narrative of the events", as a success statistic, which above all had to record the number and names of the mines producing yield, and even more so the amount of yield from quarter to quarter. To this end, he drew up a table with the heads: upper regiment - mining regiment - town regiment - church and school - yield.

Even if it was not possible to "write" a readable local history, the economic statistical material was all the more impressive. The step beyond Mathe-[133]sius was not a great leap forward: *Petrus Albinus* (1545-1600) made no progress in his theoretical approach. [4] Nevertheless, he attempted to show developments based largely verbatim on *Hubinsack*, *Agricola* and *Münster*.

Of course, it was only successful where *Mathesius* offered so much material that it was possible to describe the ups and downs of a mountain town. Following this example, *Albinus* procured material for the large mountain towns of Freiberg, Schneeberg, Altenberg, Annaberg and Marienberg. It turned out that even then this could only be obtained with large gaps. Nevertheless, *Albinus* significantly enriched his account with genuine archival studies; the list of his sources [4: pp. 194 f.] proves that he grasped the special nature of his task. He listed 154 names as well as "rhythmi Germanici" (miners' songs) and "diplomata" (mining records) as sources; 55 of his authors belong to antiquity, 11 to the Middle Ages - over 80 contemporaries were thus his main sources, so that neither Muctezuma (!) nor the "Bergwercke in moscow" are missing. *Albinus* fully understood that a mine description from 1482 from the pen of *Nickel Staudte*, a Nuremberg company owner who built and rented out water lifting systems, was of the highest value and quoted it several times. [4: p. 81] [104]

The history of individual mountain villages has been continued in narrative form, although much has remained unpublished. Several valuable chronicles date back to the 16th century, some of which are fully documented by copies of documents. We only mention *David Hüter* [43] for St. Joachimsthal and *Hardanus Hake* [32], who for the first time devoted himself to an entire mining region (the Harz).

We can pass over poetic attempts to squeeze mining towns and mining landscapes and their history into Latin verse. Nevertheless, some of the information is informative in terms of economic history, such as *Nicolaus Bourbon's* [16] poetically successful description of his father's ironworks at Vendevre in 1533 or *M. Eybisch's* [25] description of St. Andreasberg in 1574. The economic

It is in keeping with the importance of the salt works towns that they were given a "special history" [113] [106] early on. The Latin local history of Annaberg (1605) lost itself in very local matters [46] and unfortunately became the model for many later authors.

The next mining history was written in 1629 by the licentiate of law *Alfonso Garranza* [19]. The enrichment of the history of mining lies in the remarkable economic approach that coinage and mining must be regarded as correlates and both must be under the control of the head of state. *Carranza* also endeavored to compile mining records in Spain and Spanish America. Due to the penetration of the problems, this otherwise unnoticed work must be counted among the best of its time. It also shows that the leading position in mining, which Germany had lost, had now fallen to Spain. [19: p. 51]

The "directorship principle", which began to emerge at the end of the 15th century with the expansion of the authority of the greatly increased official apparatus down to the details of business management, pushed for questions of legal practice in the mining sector to be clarified. As a result, between 1450 and 1780, numerous mining ordinances were drawn up, which laid down detailed rules on property law and, to a lesser extent, labor law. From around 1600, legal dissertations on individual problems and systematic works followed. [51] They all had to rely on historical "evidence", as they were dependent on constructions in their arguments against "natural law". As a result, the history of mining law is also inherent to the history of mining as a particularly well-developed area. The development of mining law can be briefly summarized in terms of its tendency [42] [123]: Created as a medieval personal status law for miners with legal determination from custom by the [134] assembly of all free men involved in mining, it was transformed both into a property law for mining matters with legal determination from the paragraphs of the mining regulations by the civil servant mining court and into a police law to prevent violations of the work regulations with partial transfer of the legal determination to the entrepreneur.

Although *Garranza* had come up with a far-sighted concept, initially only mining historians with a limited horizon had their say in Germany, who devoted themselves to the Harz [66] and other mining districts as well as the "Ertz-Gebürge" [60] [67] [72], which only then received the name we are familiar with.

In England, *Webster* [110] emerged in 1671 with critically well-founded studies from antiquity to the present, which emphasized metallography. This aspect was obvious because many authors historically filled out investigations into the pharmaceutical effects of mining products in their medical dissertations, such as "De sulphure Goslariense" [39], with information about the corresponding extraction sites.

In 1689, *Bircherod* [12] published a topographical and historical overview of the world's goldfields in Denmark, which was still active in colonial politics in Africa and the West Indies at the time.

All these contributions were used by *Brückmann* [17], who described almost 2,000 mountain villages with varying degrees of accuracy. His writing could be seen as an expression of the new "encyclopaedic" tendency of the early French Enlightenment, which, however, often ignored its own developments in the pursuit of schematizing "order". From 1695 onwards, this historiographical maxim was countered by considerable research which, with historical perspicacity and social intuition, dealt with special mountainish topics that were not really expected for this period. Examples of this include works on the use of slaves in ancient mining [73], on the entirety of ancillary mining occupations [44] [116] in the tax-privileged "Bergwerksverwandtschaft" or on problems of "Bergmannprestiges" [28].

It must be demonstrated elsewhere how slowly the realization matured in the 18th century that *Aristotle* and *Pliny* had to give way to practice [28], because none of their messages or views could still be fruitful for current mining operations. The vain hope for

The immediate "technical benefit" of historical reports was, of course, still to be found in a weakened form until 1908 [27]. The earliest advocate of the intrinsic value of mining history studies was a Hungarian administrative official in the Western Carpathian gold quadrangle, *Dr. med. et phil. Samuel v. Köleseri* [56] ' and even more decisively by Father *Blasius Garyophilus* [20], who was now really making the turn towards historicity. In 1757, he first made the most easily detachable "Montangeschichte des Altertums" independent.

The "modern" history of mining thus consciously distanced itself from state economic and economic policy concerns; however, numerous authors, who were by no means aware of outdated principles, still endeavored to serve the "national economy". Especially after the Seven Years' War in Europe and America (1756-1763), the state's interest in the urgent economic development and expansion of the mining industry came to the fore. This is where the "Tyrolische Bergwerks-geschichte" [103] comes in, the author of which still believed in principle that he could serve the state, but which in its substantive content achieved the scientific form of historical representation that was and remained characteristic of the bourgeois era. In 1765, the country ace *Joseph von Sperges* complained about the neglect of Alpine mining history compared to the differentiated contributions for other mining areas. His motives for [135] **making up** for this backlog were the interests of the state economy, which had moved away from mercantilism and turned to physiocratic principles. *Sperges* classified the mines among the "commercial institutions", but at the same time called for a lectureship for mining sciences in Schwaz and added a completely new, folklore-oriented topic: "Von den Tyrolischen Bergknappen: ihren Leibs- und Ge- mütseigenschaften". The Freiberg schoolmaster *Fritzsche* [28], who approached socio-psychological problems, was echoed here. The section dealt with clothing, food, housing and child rearing in Tyrol, which almost amounted to mining ethnographic analyses, although many things, such as the truck system (the "penny trade"), were still misjudged.

Mining history reached a certain conclusion in 1783, when the great chemist *Gmelin* [30] created the last (!) general German history of mining, a book of rationalism that is extremely rich in quotations and entirely concerned with documentary evidence, which admittedly aims to provide an "exciting" account of dramatic highlights in the sequence of place names and years. A positive after-effect of *Gmelin* is the methodically strict citation of sources in the still chronicle-like district histories.

Romanticism took a completely different approach to the objectives of general mining history: It was concerned with seeing man in mining as "master of the earth"; admittedly, he should, proud of it, be able to be "poor with joy", which corresponded to the tendency to appease social demands. In 1829, *Mosch* [74] published a large number of popular miners' songs and legends, but avoided socially critical comments. This also applies to Count *Sternberg's* "Mining History of Bohemia" [105], which was a great support for the national rebirth of the Czech people in 1836. *Zippe* [122], who published a general "History of Metals" in 1857, was also part of this national movement. His work was then broken down into monographs; tin and gold were edited several times; *Beck* [10] devoted a five-volume account to the "History of Iron", which came close to a universal history. Admittedly, he was not a professional historian and therefore often misjudged the sources, but it was precisely an ironworks expert who was best able to present technical progress in the multi-layered production process in a comprehensible way; the more recent account [49] was also written by such an expert.

Thus the history of mining passed from the pens of local historians into the hands of specialist historians with metallurgical or mining degrees - the obvious cooperation between the historian and the specialist only came about one-sidedly through queries from historians such as *Blümner* [15]. Nevertheless, an enormous amount of work has been done, so that today the "history of metals" is much easier to follow than the "history of mining". The latter remained limited to mining history in the 19th and 20th centuries; even regional historical accounts, for example for the Upper Palatinate [91] or for Byzantium [95], are rare. The highlighting of individual metals in their historical

In the course of the 19th century, the economic history aspects of the pricing of metallic raw materials newly placed in the service of technology came to the fore. The main work in this direction by *Neumann* [79], published in 1904, was equipped with 26 lithographed tables showing the country of origin, production figures and price developments in color print. Individual tables even provided production quotas for individual companies and, in some cases, the technical processes used, insofar as this could be of interest from the point of view of patent utilization.

Monographs for mining companies proliferated around 1880; reading them gives the impression that the companies wanted to showcase their economic **and** historical development. The number of contributions in this direction, which was also cultivated in Japan [81] as well as in the USA, is difficult to estimate, but comprises many thousands of titles. To a certain extent, the objective of economic history has also been maintained in the present day (see 2.2.2., 2.3.2., 2.4.2.).

The impetus to overcome this one-sidedness in favor of an extended socio-historical analysis came from a completely different source, which had been put on a broader basis in the 19th century by the socially critical comments of mining physicians in industrial hygiene works and in the "Children Employment Reports". The labor movements in the early phase of the Industrial Revolution have often been portrayed as an expression of the decline of manual and industrial occupations. From this not entirely unjustified perspective, the "privileged German miners appeared to be a historically particularly traditional group; the English miners have never been valued so highly and therefore appeared less depressed, although they were undoubtedly the most impoverished. *Engels* [MEW 2] found the material for his work "The Condition of the Working Class in England" in the documents published in 1842 on the hardships of the miners, from which he derived the fundamental importance of the struggle of the working class.

The German miners did not receive an account of their history until 1910, as the approach of *Kautsky* [52] only referred to the attitude of the miners in the Peasants' War of 1525 and was ultimately inadequate when tailored to Thuringia. Of course, this also applies to *Hue's* account [41], which was compiled with immense diligence. It collected material that is still significant today, which - in contrast to the factory histories illuminated by the entrepreneurial side with their information about the general rise through technical innovations and economic organizations - clearly highlighted the counter calculation about the permanent plight of the miners. *Hue* may not have recognized many phenomena of capitalist development, he may have formulated some things to justify his political activity as a Social Democratic member of the Reichstag and Landtag, but he did not ignore the social decline of the mining profession.

"free miners" into the "proletarianization of the miners" [41: vol. 2, 1 ff.

Roy's [94] account of the path of the American miners lagged far behind *Hue*, and the history of the English miners' organizations has only recently been adequately dealt with by *Arnot* [9].

Because of their broad impact, the generally understandable books "für Schule und Haus" [31] [38] [107] published soon after 1870 should not be ignored. They were far more effective than the "Bausteine zur Philosophie der Geschichte des Bergbaus" [34], in that they drew an impressive picture of the technical and organizational achievements of the bourgeoisie while abridging the older periods, and cleverly promoted the highly differentiated career goals in the mining sector and, not least, directed the savings capital there. The works that have had a broad impact in our time, such as those by *Arnold*

[8] follow the trail of man underground from the past to the future, emphasizing humanistic responsibility in every use of mineral resources and the forces of nature. Incidentally, illustrations explaining mining have also appeared in school textbooks since *Comenius* (*Orbis pictus* 1658).

A new field of mining history was added around 1880, when the intensification of colonial policy brought the genuine processes in Africa and Asia into the focus of ethnography. Here *Andree* [6], which has been followed by many authors [21] up to the present day, including *Gardi* [29]

emerged several times. However, a comprehensive account [82] has also been available for Japan since 1909, and for China it was created 50 years later [137] by *Needham* [78] with particularly important information for ferrous metallurgy. This was also included in the large-scale "History of Technology" [101]. In the abridged version offered here, historians should mention *Jireček* [47] from Prague, who investigated medieval trade routes and mines in south-eastern Europe - a standard achievement given the extremely difficult source situation, which was only achieved again by *Anhegger* [7]. Since the beginning of our century, progress in individual research has been achieved above all by *Zycha* [123] directing attention beyond the presentation of merely technical procedures and formal legal principles to "studies from legal and economic history". He was followed by most mining historians, such as *Worms* [121] and others [71] [75], as well as those economic historians who increasingly turned their attention to the mining industry, such as *Ehrenberg*, *Schmoller* and *Strieder*. The socio-cultural facts, which could not be separated from the economic-historical development, now received at least marginal attention, especially as the general emphasis on cultural-historical aspects by *Lamprecht* and his school played a role.

Since the First World War had emphasized the importance of the coal and steel industry, there was no lack of studies after 1919, although it was by no means only in Germany that professional historians stayed away from the history of coal and steel. At least *Rickard* [92] and a topographical-lexical overview dedicated to antiquity and the Middle Ages [23]. It should also be noted that the *Alchimië*, which irritated the mining sector for many centuries, found a brilliant presentation of its history [61]. In addition, local historians [18] have collected an almost unmanageable amount of factual material through extensive local research in the mining districts. In most cases, they were published in the publications of the "Historical societies" had their say, and in some cases they were able to evaluate files that were later destroyed. In Germany, even as late as 1941-1944, there was a hunt for files that revealed a "flaw" because they contained records of "mining crimes" - theft, "mutiny", strikes, even accidental deaths. The paternalism of mining historians due to "mining authority interests" and the fear of outsiders gaining an insight into the economy weighed heavily on research for a very long time. *Wächtler* [109] has commented on this.

Among the positive achievements are the methods of metallurgical analysis that have been included in the history of mining since 1790. They were used by mining archaeology, which became very interested in uncovering the "Bronze Age" after 1830. However, their specifics [76] were only investigated [11] [45] [108] after collections of material and bibliographies [5] [26] had been published. Originals found their place in the German Mining Museum in Bochum, founded in 1928 - but also in the Wieliczka Works Museum [24] - and also became a model for older collections. Important results have been achieved by folkloristic research into the history of mining - standard achievements have been made in the field of miners' greetings/ miners' songs/ miners' legends [35] [36] [37], which - also in the USA [86] - have triggered further large-scale but unsuccessful works, such as that of the influential prelate *Schreiber* [97]. In addition, there are numerous individual studies, so that mining ethnography after the Second World War was able to build on a broad fund, first bibliographed in 1964 [117].

The renewed appreciation of the mining sector after 1945 also benefited the history of mining. The first major presentation in the GDR was devoted to antiquity in 1952 [119] and opened the "Culture and Technology" series of the Freiberg research journals; a "Handbook of the Oldest Metallurgy of Central Europe" [84] published at the same time provoked much opposition, but stimulated a revision of the methodology. However, [138] bibliographically available works need not be cited here; it is sufficient to show the tendency. The few specialized Marxist works on the history of mining that appeared in the Soviet Union became little known before 1955 due to their limited circulation, most likely in specialized disciplines such as Egyptology [62].

The extraordinary increase in the Marxist contribution to research since around the 1950s has also largely brought the aspects of historical materialism to the fore in the mining history of the socialist states. Since the accentuation of the economic basis

As was obvious, most Marxist contributions are based on economic history and social criticism.

[58] [59] [68] [80] [85] [109] A focus on the cultural-historical phenomena of overbuilding took place hesitantly and less frequently. On the other hand, much was done for the development of sources; the Freiberg research journals, but also organs of bourgeois mining history (Leobener Grüne Hefte, Revue d'Histoire de in Sidérugie, Der Anschnitt) contributed to this.

Since 1955, Agricola research [2] supported by the GDR came into focus worldwide. The complex of mining - forest - rafts [118] opened up a new type of topic, which led to the discovery of shockingly high peasant contributions in favor of the mining industry, which became in need of subsidies from 1550 - further depictions followed. [48] To date, only a few metal monographs have been published, the one on uranium is particularly noteworthy. [54] In addition, regional mining histories were published, e.g. for Romania [63], a three-volume work on Carinthia [112], works on Mansfeld [50]

[57] [85] [93]; an almost complete account of Swiss iron foundries [96], but also monographs on mine surveying [55], a magnificent work on alum [100], countless works on lignite and petroleum show the progressive differentiation. It should not be overlooked that the number of specialized works and specialized researchers has been declining for some years. Even the major discoveries of early Slavic complexes in the People's Republic of Poland and in the Czechoslovak Socialist Republic are only being worked up by a few researchers [11] [89], but the actual history of mining is very lively there.

[53] [64] [69] [70] [87]. Relatively quickly, Israeli and FRG teams opened up the almost 6,000-year-old sites near Timna, initially not entirely without journalistic exploitation of the results. In Spain, not only were multiple discoveries made, but also the first summaries [13] [14]. The periods up to the end of antiquity (see 2.3.2.) are generally less affected by the decline; the later periods, with their almost unmanageable fragmentation of individual studies [98] [102] [111], only rarely feature large-scale works such as *Aitchison* [3], unless there is an "anniversary occasion", which gave *Winkelmann* [120] the opportunity for material-rich, sometimes controversial interpretations.

Literature:

1 *Agricola, G.*: De veteribus et novis metallis. Basel 1546; 2. *Ders.* in: Ausgewählte Werke. Vol. 6, Berlin 1961, p. 57 ff.; 3. *Aitchison, L.*: A History of Metals. London 1960; 4. *Albinus, P.*: Meyßnische Bergk Chronica. Dresden 1590; 5. *Andree, J.*: Bergbau in der Vorzeit. Berlin 1922; 6. *Andree, R.*: Die Metalle bei den Naturvölkern. Leipzig 1884; 7. *Anhegger, R.*: Geschichte des Bergbaus im os- manischen Reich. Istanbul 1943; 8. *Arnold, W.*: Die Eroberung der Tiefe. Leipzig 1977; 9. *Arnot, R.*: The Miners. New York 1961; 10. *Beck, L.*: Geschichte des Eisens. Vol. 1-5, Brunswick 1884-1903;

11 *Bielenin, K.*: Starozyte górnictwo i hutnictwo żelaza w Górach Świetokrzyskich. Warsaw/Kraków 1974; 12 *Bircherod, J.*: De aurifodinis Europae et Asiae I, Africae et Americae II. Copenhagen 1689, 1695; 13. *Blance, B.*: Die Anfänge der Metallurgie auf der Iberischen Halbinsel. Berlin 1971; 14. *Blázquez, J. M.*, in: Anuario de Historia económica y social de España 1969 (2), p. 10 ff.; 15. *Blümner, H.*: [139] Technologie und Terminologie der Gewerbe und Künste bei Griechen und Römern. Vol. 4, Leipzig 1887; 16. *Bourbon, N.*: Ferraria. Duisburg 1960; 17. *Brückmann, F. L.*: Magnalia Dei. Brunswick 1727. Supplbd. 1-2, ibid. 1732; 18. *Brüning, K.*: Der Bergbau im Harz und im Mansfeldschen. Hamburg/Braunschweig 1926; 19. *Garranza, A.*: El ajustamiento. Madrid 1629; 20. *Caryophilus, B.*: Opusculum de antiquis fodinis. Vienna 1757; 21. *Gline, W.*: Mining and Metallurgy in Negro Africa. Menasha (Wisc.) 1937; 22. *Goghlan, H.*: Notes on Prehistoric Metallurgy. Oxford 1961; 23. *Davies, O.*: Roman Mines in Europe. Oxford 1935; 24. *Dlugosz, A.*: Magnum Sal Wieliczka. Warsaw 1958; 25. *Eybisch, M.*: Carmen de effossione et praeparatione metallorum. Goslar 1969; 26 *Forbes, R. J.*: Bibliotheca Antiqua. Part Metallurgia. Supplbd. 1-2, Leiden 1942, 1952, 1963; 27. *Freise, F.*: Geschichte der Bergbau- und Hüttentechnik. Vol. 1, Berlin 1908; 28. *Fritz- sche, Chr.*: Metalla a Plinii criminationibus vindicata. Freiberg 1702; 29. *Gardi, R.*: Der schwarze Hephaistos. Bern 1969; 30. *Gmelin, J. F.*: Beyträge zur Geschichte des teutschen Bergbaues. Halle 1783; 31 *Gurlt, A.*: Bergbau und Hüttenkunde. Essen 1889; 32. *Hake, H.*: Berg Chronik. Werni- gero 1911; 33. *al-Hassan ibn Ahmad al-Hamdānī*: Kitāb al-gauharatain al-

atiqatain al-mā'j'atain min as-safrā' wa 'l-baida'. Text, translation by C. Toll. Uppsala 1968; 34
Haupt, Th.: Bausteine

on the philosophy of the history of mining. Leipzig 1865-1884; 35 *Heilfurth, G.*: Bergmannslied. Kassel 1954; 36 *Ders.*: Bergmannsgruß. Essen 1958; 37. *Ders./Greverus, L.*: Bergbau und Bergmann in der Sagenüberlieferung. Marburg 1967; 38. *Hempel, G.*: Die deutsche Montanindustrie. Berlin 1934; 39. *Holzmann, H. G.*: De sulphure Goslariensi. Jena 1719; 40. *Hubinsack, J.*: Geschrift an Sebastian Münster, in: (77); 41. *Hue, O.*: Die Bergarbeiter. Vol. 1-2, Stuttgart 1910-1913; 42. *Huffmann, F. R.*: Über die sächsische Berggerichtsbarkeit. Weimar 1935; 43. *Hüter, D.*, in: Freiburger Forschungshefte D 18, Berlin 1957, p. 131 ff.; 44. *Ilgen, Chr. G.*: De diversis generibus opificiorum, quae circa metalla versantur. Jena 1691; 45. *Jahn, M.*: Der älteste Bergbau in Europa. Berlin 1960; 46 *Jenisius, P.*: Annabergae urbis historia. Dresden 1605; 47 *Jireček, K.*: Handelsstraßen und Bergwerke von Serbien und Bosnien im Mittelalter. Prague 1879; 48. *Johann, E.*: Geschichte der Waldnutzung in Kärnten unter dem Einfluß der Berg-, Hütten- und Hammerwerke. Klagenfurt 1968; 49. *Jo-hannsen, O.*: Geschichte des Eisens. Düsseldorf 1963; 50. *Jonas, W.*: Das Leben der Mansfelder Arbeiter 1924-1945. Berlin 1957; 51. *Jung, J. H.*: De jure salinarum tum veteri tum hodierno. Göttingen 1743; 52. *Kautsky, K.*, in: Neue Zeit 1889; 53. *Keckowa, A.*: Zupy Krakowskie w 16.-18. wieku. Warsaw 1969; 54. *Kirchheimer, W.*: Das Uran und seine Geschichte. Stuttgart 1963; 55. *Kirnbauer, F.* in: Bull. Technikgeschichte Wien 1961 (23), p. 1 ff.; 1962 (24), p. 60 ff.; 56. *Köleseri de Keres-Eer, S.*: Auraria Romano-Dacica. Hermannstadt 1717; 57. *Lärmer, K.*: Vom Arbeitszwang zur Zwangsarbeit. Berlin 1961; 58. *Laube, A.*: Bergbau und Hüttenwesen in Frankreich um die Mitte des 15th century. Leipzig 1964; 59. *Ders.*: Studien über den erzgebirgischen Silberbergbau 1470-1546. Berlin 1974; 60. *Lehmann, Chr.*: Historischer Schauplatz der Ober-Ertz-Gebirge. Leipzig 1699; 61 *Lippmann, E. O. v.*: Geschichte der Alchimie. Leipzig 1919 (Supplbde. 1931; 1951); 62. *Lurija, M.*, in: Archiv instituta nauki i techniki 1934 (3), p. 105 ff.; 63. *Maghiar, N./Olteanu, St.*: Din Istoria mineritului in România. Bucharest 1970; 64. *Majer, J.*: Težba cinu ve Slavkovském lese v 16. století, Prague 1970; 65. *Mathesius, J.*: Sarepta oder Bergpostilla. Together with the Jáchymov Short Chronicles. Nuremberg 1564 (reprint: Prague 1975); 66 *Meiboom, H.*: Dissertatio historica de metalli-fodinarum Harcicarum. Helmstedt 1680; 67 *Meltzer, Chr.*: Historia Schneebergensis renovata. Schneeberg 1716; 68. *Mittenzwei, I.*: Der Joachimsthaler Aufstand 1525. Berlin 1968; 69. *Molenda, D.*: Gór-nictwo [140] kruszcowe na terenie złóż ślasko-krakowskich do połowy 16. wieku. Wrocław 1963; 70. *this*: Kopalnie rud ołowiu na terenie złóż ślasko-krakowskich w 16.-18. wieku. Wrocław 1972; 71 *Möllenberg, W.*: Die Eroberung des Weltmarkts durch das Mansfelder Kupfer. Gotha 1911; 72. *Moller, A.*: Theatrum Freybergense Chronicum. Freiberg 1653; 73. *Mollerus, S.*: De prisco more, quo ad metallorum effodiendorum negotium servi adhibebantur. Freiberg 1727; 74. *Mosch, G. F.*: Zur Geschichte des Bergbaus in Deutschland. Vol. 1-2, Liegnitz 1829; 75. *Mück, W.*: Der Mansfelder Kupfer-schieferbergbau. Vol. 1-2, Eisleben 1910; 76. *Muhly, J. D.*: Copper and Tin in Bronze Age. Connecticut 1973; 77. *Münster, S.*: Cosmography. Basel 1544 (in German-Latin edition last hand of 1550 Hubinsack's Geschrift); 78. *Needham, J.*: The development of iron and steel technology in China. London 1958; 79 *Neumann, B.*: Die Metalle. Halle 1904; 80. *Neuß, E.*: Entstehung und Entwicklung der Klasse der besitzlosen Lohnarbeiter in Halle. Berlin 1958; 81. *Okada, Y.*: The "Mabuki Process". Freiberg 1911; 82 Mining in Japan past and present. Yokohama 1909; 83 *Osann, B.*: Rennverfahren und Anfänge der Renneisengewinnung. Düsseldorf 1971; 84 *Otto, H./Witter, W.*: Handbuch der ältesten vorgeschichtlichen Metallurgie in Mitteleuropa. Leipzig 1952; 85. *Paterna, E.*: Da stunden die Berg-kleute auff! Vol. 1-2, Berlin 1960; 86. *Paul, W.*: Mining lore. Portland (Oregon) 1970; 87 *Pazdur, J.*, in: Katalog zabytków budownictwa przemysłowego w Polsce 3/4, Warsaw 1971; 88 *Pittioni, R.*: Der Berner Steigerbecher. Vienna 1972; 89. *Pleiner, R.*: Staré evropské kovarství. Prague 1962; 90. *Polydorus, V.*: De rerum inventoribus. Venice 1499; 91. *Ress, F. M.*: Geschichte und wirtschaftliche Bedeutung der oberpfälzischen Eisenindustrie von den Anfängen bis zum 30jährigen Krieg. Regensburg 1951; 92. *Rickard, T. A.*: Man and Metals. London 1932; 93. *Robbe, W.*: Die Knappschaftsfessel von Mansfeld. Berlin 1958; 94. *Roy, A.*: A history of Coal Miners of the

United States. Columbia (Ohio) 1906; 95. *Sabatier, J.-L.*: Production de l'or, l'argent et le cuivre chez les anciens et hôtels monétaires dans les empires romains et byzantins. St. Petersburg 1850; 96. *Schib, K.*: Beiträge zur Geschichte der schweizerischen Eisengießereien. Schaffhausen 1960; 97. *Schreiber, G.*: Der Bergbau in Geschichte, Ethos und Sakralkultur. Cologne 1962; 98. *Seelig, W.*: Die wirtschaftliche Stellung

Upper Harz miners' families in the 18th and 19th centuries. Clausthal 1970; 99. *Selimchanov, I. R.*: Enträtselte Geheimnisse der alten Bronzen. Berlin 1974; 100. *Singer, Ch.*: The earliest chemical industry. London 1948; 101. *Ders.* in: A History of Technology. Vol. 1-5, Oxford 1956; 102. *Sönnecken, M.*: Die mittelalterliche Rennfeuerverhüttung im Sauerland. Münster 1971; 103. *Sperges, J. v.*: Tyrolische Bergwerksgeschichte. Vienna 1765; 104. *Staudte, N.*: (Verlorenes Ms. der ältesten Aufzeichnungen einer Bergbaufirma, z. T. Rekonstruierbar aus Albinus) 1482; 105. *Sternberg, G. Graf v.*: Umrisse einer Geschichte der Böhmisches Bergwerke. Vol. 1-2, Prague 1836/37; 106. *Thölde, J.*: Haliographia. Eisleben 1603; 107 *Treptow/Wüst/Borchers*: Bergbau und Hüttenwesen. Leipzig 1900; 108. *Tylecote, R. F.*: Metallurgy in Archeology. London 1962; 109. *Wächtler, E.*: Bergarbeit zur Kaiserzeit. Berlin 1962; 110. *Webster, J.*: Metallography or a History of Metals. London 1671; 111. *Westermann, E.*: Das Eislebener Garkupfer (1460-1560). Cologne/Vienna 1971; 112. *Wießner, H.*: Geschichte des Kärntner Bergbaus. Vol. 1-3, Klagenfurt 1950-1956; 113. *Willichius, J.*: De salinis Cracovianis. Krakow 1543; 114. *Wilsdorf, H.*, in: *Agricola-G.*: Ausgewählte Werke, vol. 1, Berlin 1955; 115. *Ders.* in: Agricola-Gedenk-Schrift. Berlin 1955, p. 182 ff.; 116. *Ders.* in: Abhandlungen und Berichte des staatlichen Museums für Völkerkunde zu Dresden 1978 (36); 117. *Ders./Uhlrich, H.*: Bergleute und Hüttenmänner in deutschsprachigen Untersuchungen 1945-1964. Berlin 1966; 118. *Wilsdorf, H./Herrmann, W./Löffler, K.*: Bergbau - Wald - Flöße. Berlin 1960; 119 *Wilsdorf, H.*: Bergleute und Hüttenmänner im Altertum. [141] Berlin 1952; 120 *Winkelmann, H.*: Der Bergbau in der Kunst. Essen 1958; 121. *Worms, S.*: Schwarzer Bergbau im 15. Jh. Wien 1904; 122. *Zippe, F. X. M.*: Geschichte der Metalle. Vienna 1857; 123. *Zycha, A.*: Das Recht des ältesten deutschen Bergbaus. Berlin 1899.

Helmut Wilsdorf

1.3.9 Transport history

The history of transportation as a special branch of economic history is based on the *position of transportation in the social reproduction process*. Its scientific basis in relation to capitalism is *Marx's* observation that transportation is a branch of material production: "Apart from extractive industry, agriculture and manufacture, there is a fourth sphere of material production, which also passes through the various stages of manual, manufacturing and mechanical production; this is the *transport industry*, whether it transports people or goods (or news - author's note). The relation of *productive labor*, i.e. the wage laborer, to capital is quite the same here as in the other spheres of material production." [MEW 26.1: 387]

In his writings, *Marx* repeatedly distanced himself clearly from the views of the bourgeois economists of his time, who regarded traffic and especially transportation as belonging to circulation. In contrast, he demonstrated that the work of transportation represented an "additional production process" because "the use value of things ... (realizes) only in their consumption, and their consumption may necessitate their change of place" [MEW 24: 151]. Even if this particular production process takes place *within* the general production process and is indispensable for it, it *directly* continues the production of industry and agriculture and creates additional value, while according to *Marx* the "general law is that all circulation costs, which arise only from the transformation of the commodity into a form, add no value to the latter. They are merely costs for the realization of value or for its translation from one form into another." [MEW 24: 150] *Marx* further proved that transportation belongs to the sphere of material production by the fact that during the *production* process a special product is created in the form of the movement of goods, people and messages. This product must be consumed during its production; in this context *Marx* spoke of the "annihilation of space by time" [MGr 423]. The transportation system continues to create value through its production, which, however, can only be directly demonstrated in the transportation of goods, while, understandably, transported persons and messages do not increase in "value" in the material sense through the change of location.

With regard to the transport of goods, which dominated in all social orders in comparison to passenger transport, *Marx* explained that value is added to the products through the change of location, "partly through the transfer of value from the means of transport, partly through the addition of value by means of transport labor" [MEW 24: 151] [14].

Marx's definitions, which are fundamentally valid for all social orders based on the division of labor, also set the framework for what Marxist transport history must deal with. This is [142] firstly the development of the productive forces in transportation, divided into different areas. This includes the *means of transport* as the "physical conditions of exchange" [MEW 20: 450], starting with the first means of transportation and primitive forms of communication up to supersonic airplanes and communication satellites. In addition to these, transport routes and other transport facilities, such as ports, railroad stations, airports, post and telephone offices and telegraph stations, should be examined, which were already of great importance as *general* production conditions at an early stage of social development, "be it that they facilitate circulation or even make it possible in the first place, or also increase productive power" [MGr 429]. The level of development of human labor, its abilities and skills in mastering the existing technology or perfecting it, continues to be decisive for both the means of transport and the transport routes and facilities.

A further area of investigation for transport history is the dependence of the transport system on the historically given social order, with the correspondence between production and transport conditions. The centuries-long link between transport and trade through the personal union between traders and transporters and the separation between the two areas must be taken into account [14], as well as the development of typical corporate structures of the transport industry in the individual branches of transport. Among other things, early forms of cooperative ownership in the shipping industry, but also the partnership shipping industry, need to be clarified. Equally important is the stimulating force of the formation of joint-stock companies in maritime shipping and, above all, in the railroads for the incipient concentration of capital in other sectors of the economy. No less important are the reasons for the early nationalization of such modes of transport as the railroads and communications in Germany and some other countries, but also for a delay in this process in highly developed capitalist countries such as the USA, England and France. In addition to many other problems, the position of the state with regard to transportation in general must be addressed in this context, as well as the trend towards increasing state involvement in capitalist transportation.

A great deal of space is devoted to working out the fundamental differences in the position of transportation in capitalist and socialist society. In addition to other questions, fundamental considerations such as whether transportation should primarily have a service character or whether it is consciously used as a growth factor in the entire social reproduction process play a role. [4] [16] [25] [31]

Closely related to this are business and economic issues, in particular the design of transport tariffs and charges, which are of considerable interest for many economic processes, including the design of foreign trade relations.

Another characteristic feature of transportation is its active role in the political and military sphere. It differs from other sectors of the economy in that it is a direct tool of communication with foreign countries (under capitalist conditions also an important sphere of investment for capital in this respect), but also for preparing for and waging war. The distinction between means of transport for civilian and military use dates back to the time of the [143] First World War and is still imperfect today in that "civilian means of transport" are still used directly for military tasks in the event of war.

The *military function of transportation* in particular has had a lasting influence on its development over the last century, both in technical and economic terms. For this reason, the history of transportation must also include this question in its investigations.

The method of approach is very different; it includes monographs of the individual modes of transport (including inland waterways, maritime transport, railways, urban transportation, road transport, air transport, pipeline transport, postal and telecommunications) as well as complex depictions of the various modes of transport: land transport, inland waterways, maritime shipping, railroads, urban transport, road transport, air transport, pipeline transport, postal and telecommunications) as well as the complex presentation of the transport development of individual historical periods or the treatment of detailed questions. The focus can be primarily on technical as well as economic or military issues. However, transport history can also be a means to an end, i.e. a demonstration model for certain current transport science problems.

In any case, however, it is not only oriented towards the presentation of concrete historical relationships and development processes within the framework of the individual modes of production, but also reveals specific regularities of the position of transportation in the respective social orders. This applies, for example, to connections between the general economic development and that of transportation, which have the character of laws, but also to the dynamic role that transportation played in shaping social processes. *Marx* and *Engels* emphasized the decisive function of transport as a growth factor in society in a variety of ways. In a letter to *W. Borgius* in 1894, *Engels* wrote that *Marx* and he included the entire technology of production and transportation in the economic conditions that they saw as the determining basis of the history of society. They saw not only the manner of exchange and the distribution of products as dependent on this, but also, after the dissolution of the gentile society, "the division of classes, thus the relations of domination and servitude, thus the state, politics, law, etc." [MEW 39: 205]. [MEW 39: 205].

In our opinion, this problem has been unjustly neglected from a scientific point of view. Most studies of economic history have focused on industry, agriculture and trade, while transportation has either been completely ignored or regarded as an auxiliary to trade. In contrast, few studies have done justice to its importance as a sphere of material production, on the level of which not only the functioning of every economy based on the division of labor depends, but which also influences numerous social processes. For this reason, in addition to the constant processing of concrete historical processes in the transport sector, it is also important to uncover its historical regularities, which have not yet been taken into account, or only to a limited extent.

Current research into transport history can draw on extensive factual material, as the position of the transport system in the social reproduction process, and especially in the satisfaction of individual needs, aroused a relatively broad interest in its current state and the possibilities for improving it from an early stage. The same applies to the political and military functions of transportation. For example, in Pseudoxenophon's "Athenaion Politeia", an unknown author from 5th century Athens explains how the transportation system could be improved.

BCE the advantages of a naval power over other states [19]. There are also many detailed references to transportation problems in poetry, for example in the *Iliad* and other heroic songs, but also in travelogues and similar literary testimonies.

Another very revealing source is the legal regulations that first emerged in the early class societies - at that time primarily to clarify maritime traffic and maritime trade issues. For example, parts of the *Lex Rhodia de lactu*, which clarified the financial aspects of general average, have survived to this day. [1: 5] With the increasing expansion of transportation, such evidence becomes more extensive. In addition to revealing legal documents [12: 5] [30], numerous literary testimonies (again travelogues, etc.) have also survived from both slavery and feudalism.

Understandably, these are, without exception, a more or less random selection of concrete historical events, but not a systematic presentation of longer historical events.

development periods and certainly not a scientific penetration of the problem.

The need for a theoretical study of transportation only arose when modern mass transport emerged with the capitalist mode of production and the aim was to clarify such economically important issues as the location of industry, the market relations of agriculture and the division of the transport market on a national and international scale. Classical bourgeois economics, but especially bourgeois national economics, took up these questions and usually examined them from a particular perspective. Historical examples were often used as evidence. *Marx* and *Engels* dealt with such views in great detail and in this context justified the position of transportation within the framework of the individual social orders. They were also the ones who - true to their basic methodological principle of viewing all social processes in their historical development and in context - analyzed the emergence of transport from its earliest beginnings to the level it had reached at that time from the point of view of proving the importance of transport for all areas of society. It is interesting to note that *Marx* and *Engels* not only constantly developed the terms they used, but also achieved greater definitional clarity in their explanations. In the "German Ideology", for example, they still used the term "intercourse" for the dealings between people and for the activities associated with the exchange of goods, whereas in the "Communist Manifesto" they used it to explain commercial intercourse [MEW 5: 214]. After about 1860, however, they separated the terms trade and transportation in order to clarify their earlier view of transportation as a sphere of material production [MEW 39: 314; 26.3: 320], whose main task they saw in the local "transformation of the existence of goods, people and news on an industrial scale" [15: 60].

When systematically working through the works of *Marx* and *Engels* - as well as those of *Lenin* - the abundance of references to the development of transportation in economic, political, military and technical terms is astonishing. They are of great importance for our studies today, as they provide a guideline for the regularity of the processes of transport history. Their particular value from our special point of view lies in the clear assignment of transportation and communication to material production and in its differentiation from the sphere of circulation even in the early class societies. Equally important is Marx's [145] definition of the means of transport and communication as means of labor that serve the process of changing the location of goods, people and messages. *Marx* understood ships, wagons, railroads, telegraphs and posts as the physical conditions of the processes of change of place, just as he explained them together with transport routes as general conditions of the social production process [MEW 24: 252 ff.; 23: 404], which must arise - through the original commonwealths, through private or state initiative, because they are an indispensable precondition not only of an economic but also of a social nature [MGr 425].

Lenin continued his investigations into transportation under the conditions of imperialism and socialist construction in a similarly comprehensive manner, whereby he was able to include completely new phenomena in his investigations, such as the extensive export of capital to colonial and semi-colonial countries in the field of railroad construction or the formation of state-capitalist or state-monopoly elements in the large state transport companies, but above all the diverse functions of transportation for socialist construction. *Lenin's* investigations confirmed the transport system as part of the material basis, but also the manifold dialectical interactions between it and social life as a whole [15] [25].

Among the bourgeois national economists of the first half of the 19th century who dealt with transportation in a comprehensive manner, *Friedrich List* should be mentioned in particular, who - in marked contrast to the theoretical level of his national economic writings - was a "capitalist practitioner" in the development of modern mass transportation, but especially in the development of a modern transport system.

The emergence of the German railroad network, was very successful. *List* saw the practical needs of emerging capitalism very clearly and was the first to point out the need to create a national transportation system. He wrote: "Previously, I had only known the importance of the means of transportation as taught by *the theory of value*; I had only observed the effect of transportation facilities in detail and only with regard to expanding the market and reducing the price of material goods. Only now did I begin to consider them from the point of view of the theory of productive forces and in their *total effect as a national transportation system*, and consequently according to their influence on the whole intellectual and political life, social intercourse, productive power and the power of nations. Only now did I realize the interdependence between the *power of manufacture* and the *system of national transport*, and that the one cannot attain high perfection without the other." [11: 7]

Based on these considerations and drawing on the practical experience he had gained in the USA, *List* examined many economic connections between the development of modern mass transportation and the economy, going beyond the level of bourgeois political economy in that he not only placed detailed questions in the right context, but above all by stating that one mode of transportation alone could not meet the requirements of the emerging capitalist economy. Rather, he pointed out that the further specialization of production and the increasing division of labour would also place more differentiated demands on the transport market, so that in addition to the railroad construction that he practically promoted, extensive measures to improve road transport, maritime and inland waterway transport and communications were also necessary. With a clear view of the capitalist needs of the time, he focused on those priorities that proved to be absolutely necessary for the future realization of transport projects.

[146] In his extensive writings on transport, *List* conveyed much practical experience of railroad construction and many correct economic considerations on the expansion of the transport infrastructure, which are important for transport history research, although his theoretical considerations on transport issues as a whole clearly show his limitations and show that he did not recognize the nature and inner connections of social phenomena. This is illustrated, among other things, by his thoughts on the possible unrivaled cooperation of the individual modes of transport, which he wanted to place under the unified management of the German Confederation in his early writings, but also by his opinion that the construction of railroads would put an end to invasion wars and that only border wars would take place, which would one day cease altogether due to the effect of the railroads. These utopian views were disproved in practice just a few years later, as Prussia was already using its first railroad lines for maneuver transports, and the German lines available at the end of the 1940s were largely used to suppress the revolution.

Throughout the 19th century and even in the first decades of the 20th century, the systematic study of transport problems was linked to national economics and served primarily to clarify problems of transport economics, but also to some extent those of trade economics, since bourgeois national economics for a very long time and stubbornly defended the view that transport belonged to the sphere of circulation.

Johann Heinrich von Thünen, for example, was one of the first to examine the relationship between transportation and location in his work "Der isolierte Staat in Beziehung auf Landwirtschaft und Nationalökonomie" [24] and developed a theory of circles of agricultural production that formed around each city depending on the transportability of a product, in such a way that vegetable production, which was at risk of transportation, should be located in the circles closest to the city, while in his view grain production was suitable for more distant circles. The "Thünen circles" - often in connection with the marginal cost theory - were later also considered relevant for industrial development and, often modified, still serve as a theoretical framework for certain questions in bourgeois transport economics today. [27]

Transport economic studies based on historical analyses have been accumulating since the 1970s, not only in Germany but also in other capitalist countries. [3] [5] [10] This phenomenon was caused by the gradual development of a transportation system consisting of railroads, maritime and inland waterways, land transport and communications. Their relationships with each other became increasingly diverse and at the same time more differentiated. The need for cooperation in the interests of the national economy was countered by ever-increasing competition and the pursuit of unrestricted profit growth in the transport market. The increasing interactions between the economy and transport, but also the simultaneous, especially in Germany, beginning interventions of the state in the ownership of the modes of transport (for example by nationalizing the railroads) forced a debate and clarification of the scientific and practical points of view. [28] *Emil Sax*, among others, gave a comprehensive account in his book

"The means of transportation in the national and state economy" [20].

He justifies the opinion that the transport economy is subject to special laws, whereby it clearly differs from general economic theory, [147] a view that is still defended very absolutely today by quite a few representatives of the bourgeois transport economy theory, ignoring the fact that the differences that exist in the production process and in the formation of value in the transport sector are to be derived from general economic laws and are based on them.

Sax, as well as other authors of the time (among them prominent representatives of the practice, such as *Heinrich von Stephan*, German Postmaster General and later State Secretary of the Imperial Post Office [22]), focused on transport history; their examples were mainly used to discuss questions of transport economics. In doing so, there is a different emphasis on either technical or operational or economic problems. Transport technology [7] [26] was also given particularly strong consideration in connection with the general historiography of technology.

This character also determined the historiography of transportation in the following decades, whereby the quality of special scientific studies (such as Hanseatic shipping [17], postal traffic [9] or the development of the railroads in individual countries) was considerably increased by the exact study of sources. In general, the number of individual studies now predominated over the initially emphasized overall descriptions.

General economic historiography, on the other hand, still did not take transport development into account to the extent that would have corresponded to the importance of this economic sector. This also explains, for example, why the development of theoretical principles of transport development was not based on economic history, but continued to be shaped by bourgeois transport economics. This situation has hardly changed in capitalist countries to this day; theoretical statements on transport economics are often based on relatively extensive historical studies (such as *Fritz Voigt's* "Verkehr" [27]). More recent works show a convergence of viewpoints on issues such as the role of transport for the economy and the state, the tasks and products of the transport sector and similar problems. On the other hand, there are differences of opinion on the classification of transport in the national economy (material production, circulation sphere or service sector) as well as opinions on the development and expansion of transport or the importance of the state for transport development. [2] [6] [8] They result primarily from erroneous views on the driving forces of social development, the determining role of production relations or the relationship between base and superstructure and lead to too little or no attention being paid to the dialectical interaction between the individual areas of society. [18] [21] [22] In addition, transportation is often viewed in isolation and its effect on economic development is sometimes overestimated in the sense that, for example, the lack of expansion in some capitalist countries over the last few decades has led to the development of a new transport system.

The effect of urban sprawl that can be observed is attributed solely to the lack of transport links, without taking into account the social causes that led to this effect. Similar views also exist with regard to the explanation of the high or low traffic density of different geographical areas. [27] The importance of the state for transport development is also frequently overestimated and often interpreted clearly in terms of imperialist ideology, as was the case with *Pirath*, one of the best-known representatives of West German transport economics in the post-war period. He characterized, for example, the transport policy of the slaveholding states with the words: "The power and mission of large-scale and lordly thinking peoples were the starting point and object of the old transport policy." [13: 277] He regarded the collapse of the Hanseatic League as proof of the "primacy of the state over transport" that he postulated, because "this system (of the German Hanseatic League - the author), despite its technical and organizational superiority in maritime shipping and also in inland transport, (collapsed) as soon as nationally conscious foreign states confronted it and Germany's political disunity was not able to provide it with sufficient support" [13: 278].

In our opinion, the debate on such and other erroneous and unscientific views of bourgeois transport science should be intensified. This is mainly due to the fact that the study of transportation history in the socialist countries is still a matter for a few specialists [29] and that the representatives of general economic history, whose scientific potential is far more extensive, still take too little account of transportation in their studies. The same causes are decisive for the fact that to date - measured against the number of works on economic history - relatively few Marxist publications have been published on theoretical questions of transport history.

Literature:

- 1 *Abraham, H. J.*: Das Seerecht. 3rd ed., vol. 1, Berlin 1959; 2. *Aldcroft, D. H.*: Studies in British transport history 1870-1970. London 1974; 3. *Borgh, R. van der*: Das Verkehrswesen. Leipzig 1912;
- 4 *Chagaturov, T. S.*: Voprosy razvitiia transporta i svyazi v SSSR. Moscow 1948; 5. *Cohn, G.*: Zur Geschichte und Politik des Verkehrswesens. Stuttgart 1900; 6. *Dunbar, S.*: A History of travel in America. Indianapolis 1915; 7. *Fürst, A.*: Die Welt auf Schienen. Munich 1918; 8. *Grossman, W. L.*: Fundamentals of Transportation. New York 1959; 9. *Hartmann, E.*: Entwicklungsgeschichte der Posten von den ältesten Zeiten bis zur Gegenwart, mit besonderer Beziehung auf Deutschland. Leipzig 1868; 10. *Jackman, W. T.*: The Development of Transportation in Modern England. Cambridge 1916, 2nd ed. 1962; 11. *List, F.*: Writings/Speeches/Letters. Vol. 3, Schriften zum Verkehrs- wesen. Berlin 1929; 12. *Meißner, R.*: Germanenrechte, neue Folge - "Nordgermanisches Recht", Bruchstücke des Birkinselrechts und Seefahrerrechts der Jónsbók. Edited by R. M., Weimar 1950; 13. *Pirath, C.*: Die Grundlagen der Verkehrswirtschaft. 2nd, expanded edition, Berlin (West)/Göttingen/Heidelberg 1949; 14. *Rehbein, E.*, in: JWG 1969, T. III, p. 239 ff.; 15. *Rehbein, G.*: Das Trans- port- und Nachrichtenwesen in den Werken von Marx, Engels und Lenin. Berlin 1976; 16. *Ringes, V.*: Stezka dějin naší dopravy. Prague 1958; 17. *Rörig, F.*: Hansische Beiträge zur Deutschen Wirt- schaftsgeschichte. Breslau 1928; 18. *Rousseau, P.*: Histoire des transports - Les grandes études his- toriques. Paris 1961; 19. *Ruscher, R.*: Pseudoxenophon's Schrift über den Staat der Athener im Lichte der modernen Staatslehre. Nuremberg 1955 (diss.); 20 *Sax, E.*: Die Verkehrsmittel in Volks- und Staatswirtschaft. Vienna 1878 ff.; 21. *Savage, C. I.*: An economic history of transport. London 1961;
- 22 *Stephan, H.*: Geschichte der Preußischen Post von ihrem Ursprunge bis auf die Gegenwart. Berlin 1859; 23 *Taylor, G. R.*: The Economic History of the United States. Vol. 4: The Transportation Revolution, 1815-1860. New York/Toronto 1951; 24. *Thünen, J. H.*: Der isolierte Staat in Beziehung auf Landwirtschaft und Nationalökonomie. Rostock 1842; 25. *Tretyakov, A. P.*, in: WZHfV 20 (1973), H. 1;
26. *Veredarius*: Das Buch von der Weltpost. Berlin 1894; 27. *Voigt, F.*: Verkehr. Vol. 2, 2nd half, The development of the transportation system. Ber-[149]lin (West) 1965; 28. *Weber, M. M.*: Natio- nalität und Eisenbahnpolitik. Vienna/Pest/Leipzig 1876; 29. *Wielopolski, A.*: Zarys gospodarczych dziejów transportu: do roku 1939. Warsaw 1975; 30. *Monumenta Germaniae*. Leges,

Section I 215;

31st *Razvitie techničeskich sredstv transporta*. Moscow 1967.

Elfriede Rehbein [150]

1.4. Neighboring sciences of economic history

1.4.1. Archaeology

The term "archaeology" has a wide variety of meanings in terms of time, place and subject matter. According to the Greek sense of the word, it means the knowledge of earlier things, the beginnings. "Archaeology" can thus be translated as "history". [13: 3] In modern usage, the term is narrowed down and used to refer to the science that deals with the entirety of the material legacy of past cultures.

Archaeology uses its own methods, which will be described in more detail below, and interacts with neighboring sciences in a variety of ways. In order to characterize the importance of archaeology for the economic historian, it is advisable to stick to the broadest possible definition. Through extensive specialization, individual branches have become so independent that it is hardly possible to speak of archaeology, but rather of archaeologies whose subject matter can be a culture, a region, a historical period or even just a genre of monuments. Although its character as an excavation science largely determines the general understanding of archaeology, this only affects part of its methodology. In the following, the main focus will be on general archaeological methods and the specific nature of the results resulting from them.

As a modern science, archaeology is a child of the Enlightenment. The French physician Jacques Spon first used the term "archaeologia" in 1685 without following any internal rules of organization or direction of research. [13: 13] In terms of its significance for the history of science, however, Winckelmann was its actual founder. His work, rooted in the emancipatory aspirations of the bourgeoisie, culminated in the "Geschichte der Kunst des Altertums" (1764) and the "Monumenti antichi inediti" (1767). The idea of the succession of styles and the development from the "old style" to the "high style", "beautiful style" and "style of the imitators" organized the surviving monuments for the first time according to a principle derived from them. The focus of archaeology on works of art, which stemmed from Winckelmann's classicist attitude, proved to have serious consequences; within so-called classical archaeology in particular, a great deal of effort has traditionally been devoted solely to ancient works of art, especially sculpture.

With the large-scale excavations that began in the second half of the 19th century, other problems came to the fore. Schliemann searched in Troy (1871) and Mycenae (1876) [151] for evidence of the tradition of real events that he suspected was contained in the myth, and his success opened up new sources for history.

As historical knowledge progressed and the geographical and temporal scope of interest expanded, excavation activity grew into new areas and new branches of archaeology were formed. In the process, it gradually freed itself from the role of an auxiliary discipline that accompanied and illustrated historical work and worked with a fixed objective, and achieved independent research with a more refined methodology. In addition to the works of the various fine arts, which had always been the main aim of excavations in Italy (Herculaneum, Pompeii) and which were also the primary objective of the first major excavations in Mesopotamia and Egypt, new categories of monuments such as ceramics, tools, weapons, fortifications and tombs emerged.

For the non-written cultures of prehistory and early history, archaeology is often the main source of historical knowledge. This is already evident in terms such as funnel beaker culture, which refer to their archaeological origins. The situation is different for the written cultures of the Ancient Near East or even Greek and Roman antiquity. Here, archaeological data is only very gradually being regarded as equivalent to the written tradition. [4]

The methodology of archaeological research developed mainly in the field of European prehistory and early history and was only gradually transferred to excavations in the Mediterranean region.

For the economic historian, the research history roughly outlined above gives rise to a number of requirements.

Archaeological facts very directly reflect certain facts of economic history. The respective development of the productive forces, the distribution of production sites, the course of long-distance trade routes can be deduced relatively easily from the find material, other problem areas such as property relations, the internal structure of social communities, questions of land management, only in a mediated way. For the sake of clarity of argument, however, it is essential to first examine the facts in their archaeological context and to clarify their significance before placing them in new contexts.

As a rule, the economic historian will refer to facts that have already been interpreted archaeologically. To do this, he must be familiar with the methods of extraction and the principles of arrangement, whereby the ideological position should not be ignored in addition to the scientific-theoretical aspect. In this context, archaeological sources should be used to a much greater extent than has been customary in the past to deal with questions of economic history, just as such problems should increasingly influence the tasks and methodology of archaeological work.

The starting point for archaeological work is the find, the monument. This is always an object or situation that has been more or less destroyed or torn from its original context.

The main groups of archaeological finds are tombs, hoards and settlements, and in the area of developed cultures, architecture. The aim of processing the monuments is to understand them from their original context, to assign them to a culture or to place them in a different system of relationships. The first requirement for this is to *date* them. Undated, the monument is inaccessible to historical questioning and can at best serve aesthetic enjoyment. In order to arrive at an absolute or relative chronology, various methods are available, the application of which depends on the respective character of the find material and the circumstances of the find. [16] If the finds originate from an excavation carried out according to scientific methods [8] [12], their location in the ground already provides clues. In most cases, the deeper object will be the earlier one. This *stratigraphy* - a distinction is usually made between vertical and horizontal stratigraphy - can be interlocked with an absolute chronology using finds dated elsewhere (coins, inscriptions).

The *typological method*, which goes back to the Swede Montelius, takes its argumentation from the objects themselves by establishing a developmental history of the types, the forms found. The underlying (non-dialectical) concept of development is not questioned further, it is oriented towards Darwinian evolutionism [5]; however, the type series obtained in this way allow the material to be classified even if no stratigraphic findings are available. The so-called typological rudiment, a form element that is present but without the function that it had on previous pieces in the series, and the "closed find", a clearly assigned group of objects that is able to clarify the relationship of the individual typological series to one another, offer control options - already introduced by Montelius.

By combining both methods and correlating them with scientific methods [16] [14] [10], a largely reliable chronology can be established.

Related to the typological method are the principles of form history and style analysis used in classical archaeology. [13: 163 ff.] They usually gain their fixed points from historically preserved dating and classify the individual pieces in a hypotheticalal development.

Once dated, the monument is open to further efforts, interpretation, reconstruction and insertion into its original social context. In each case, the archaeologist pursues his own questions, which he attempts to answer in the publication.

The economic historian will usually be forced to take the facts that interest him from the archaeological context; he will often have to "translate" them. As a rule, the less developed the culture under investigation is, the easier it will be to access the material for questions of economic history. However, at least for some time now, the relationship between economic history and archaeology can be seen as a feedback loop. The results of economic history inaugurate new archaeological questions, new groups of finds are opened up. With the refinement of archaeological methodology - in addition to careful stratigraphy, this has recently included above all the application of scientific and mathematical methods

[14] [15] - is also accompanied by an expansion of the field of research. Historically close epochs, such as the time of the industrial revolution, became the subject of archaeological investigations. [6] Although "industrial archaeology" may add little more than a few illustrative elements to the picture created by other sources, urban core research, for example, has produced results where written sources are silent.

Scientific investigations, such as spectrographic material analyses, can provide important information about technological processes, the origin of the source materials - including trade - or dating aids. Important tasks for the archaeological work of the future lie in the targeted application of such usually quite complex procedures and in the development of the material already collected using data processing methods. [153]

Literature:

- 1 *Bianchi-Bandinelli, R.*: Archeologia e Cultura. Milan/Naples 1961; 2. *Bruneau, Ph.*, in: Bulletin de Correspondance Hellénique 1976 (C); 3. *Coles, J.*: Archaeology by Experiment. New York 1973; 4 *Finley, M. I.*, in: Daedalus 1971 (100), p. 168 ff.; 5 *Herrmann, J.*, in: EAZ 1965 (VI), 2, p. 97 ff; 6 *Hudson, K.*: Industrial Archaeology. London 1966; 7. *Montelius, O.*: Die älteren Kulturperioden im Orient und in Europa. Vol. 1, Stockholm 1903; 8. *Müller-Wiener, W.*: Archäologische Ausgrabungsmethodik. Munich/Vienna 1974; 9. *Niemeyer, H. G.*: Methodik der Archäologie. Munich/Vienna 1974; 10. *Schwarz, Th.*: Archäologen an der Arbeit. Bern/Munich 1965; 11. *Thomas, H. L.*: Near Eastern, Mediterranean and European Chronology. Vol. 1-2, Lund 1967; 12. *Wheeler, M.*: Modern Archaeology. Hamburg 1960; 13. *General Principles of Archaeology*. Munich 1969;
- 14 *Research and Theory in Current Archaeology*. New York 1973; 15. *A Symposium on the impact of the natural sciences on archaeology*, in: Philosophical Transactions of the Royal Society of London 1971, Ser. A, vol. 269; 16. *Wege zur Datierung und Chronologie der Urgeschichte*. Berlin 1975.

Franz Vlach

1.4.2. Company history

Company history is the historical process of the emergence and development of a company, the history of the achievements, the struggle and life of the people in the company, especially the workers under the leadership of their revolutionary party, the history of ownership, the economy, technology, technology and production of the company, embedded in the history of the environment, the state and the economic or industrial sector. For research purposes, business history makes use of the laws and facts researched by economic history, in some cases together with other sciences or adopted from them. The history of economic activity and the situation of working people, the development of productive forces in the workplace are also the subject of economic history. For this reason, in some socialist countries, economic historians or historians with a focus on economic history have at least temporarily turned their attention to the history of the workplace, e.g. J. Kuczynski in the GDR, Mitrofanova in the USSR, Berend and Ránki in Hungary. But there are also the other problems of labor relations to be examined, which are the subject of research in other sciences. In Bulgaria, for example, the ethnographer Chadšnikolov championed the cause of industrial history. In the ČSSR, many employees of the Silesian Institute of the Academy of Sciences of the ČSSR in Opava, which was tasked with regional history research, also devoted themselves to the history of individual companies. In every socialist country, the party institute is

interested in the history of the workers' movement and the history of factories.

Depending on where they stand, some historians assign company history more to economic history, the history of the labor movement or regional history. [3: 349 ff.] However, a general assignment of industrial history to this or that discipline would lead to one-sided approaches and results.

The situation is different with capitalist company history. In it, the creativity and history-forming power of the working people, especially the working class and its class organizations, play no role. It is, as Redlich writes, "business history" in the true sense of the word and thus part of economic history: "Research topics with such similar intellectual objectives as economic history and the history of business life necessarily influence each other, in this case perhaps to a very special degree." [10: 7 f.]. [10: 7 f.]

The most favorable location conditions for the construction of a new plant can be determined through the interaction of various sciences, e.g. economics, geography, geology, construction and transport science as well as sociology. The decisions made on the basis of this and made effective through new buildings are primarily economic or economic policy decisions. Their realization is part of the knowledge conveyed by economic history. Business history can tell us how this knowledge was utilized at the time the factory was built and can also determine the factors that changed the site conditions over time and how they led to the use of other energy sources (water wheel - steam engine - electric motor), to the processing of other raw materials (wool - linen - cotton - plastics) or to a fundamental change in production (mining products - mining machines).

Economic history explores the laws of development of the economic formation of society. From 1900 onwards, monopoly capital, imperialism, prevails in the major capitalist countries. Business history examines how this affects the individual company, which may have already been a corporate enterprise in 1880, while another could still be a craft business in 1920.

The situation of workers under capitalism is researched by economic history for countries and regions. Industrial history examines these problems in connection with the emergence and development of the labor movement in individual companies. [8]

The economic history presents the main features of economic policy. The VIII Party Congress of the SED decided on certain measures for an increase in economic performance and effectiveness as a factor of a uniform economic and social policy. The company history examines what the workers of the respective company have achieved for this within the plan and, if applicable, beyond, and with what methods, means and results.

The company histories offer a concrete reflection of the experience gained during the course of the company's development, e.g. the economic experience. They also include a collection of concrete economic data and facts about the company. Together with the analysis of its development, these form an increase in knowledge for economic history.

From the company histories, the economic historian learns a wealth of concrete details about capitalist exploitation, such as wages, working hours, accidents at work, occupational illnesses and general working conditions, which have been compiled from work regulations and veterans' reports. Here, the process of monopolization and the competition it intensified also become visible in their concrete forms. The threads through which state monopolistic capitalism reaches into the individual companies can be traced here. The involvement of the respective company in the preparation and execution of the world wars is documented here.

The start-up of production after the Second World War by the activists of the first hour, the development of planning, management and mass initiative in the company under the leadership of the revolutionary workers' party can be read in detail. From exemplary details about the development of innovation methods, [155] collective competition and the brigades to the

international joint work - here the economic historian finds a wealth of examples of the creative power of the working people.

Literature:

1 *Chadšinikolov, V.*: Njakoi obšči v-prosi ža istorijata na fabrikite i žavodite. Sofia 1967; 2. *Hanák, P.*, in: *Acta Historica Academiae Scientiarum Hungaricae* 1968 (14), p. 339 ff.; 3. *Jisa, V.*, in: *Zpravodaj komise pro dějiny závodů v ČSSR*, 1967, H. 1, p. 5 ff.; 4. *Jonas, W.*, in: *JWG* 1960, T. I, p. 145 ff.; 5. *Kuczynski, J.*, in: *JWG* 1963, T. II, p. 143 ff.; 6. *Ders.* in: *JWG* 1964, T. I, p. 13 ff.; 7. *Mitrofanova, A. V.*, in: *JWG* 1974, T. IV, p. 283 ff.; 8. *Radandt, H.*, in: *JWG* 1968, T. IV, p. 339 ff.; 9 *Ders.*: *Betriebsgeschichte erforschen, schreiben, propagieren*. Berlin 1977; 10. *Redlich, F.*: *Anfänge und Entwicklung der Firmengeschichte und Unternehmerbiographie*. Baden-Baden 1959; 11 *Reißig, K.*, in: *JWG* 1975, T. I, p. 209 ff.; 12 *Az 1972, junius 7-10. Között megtartott II. Nemzetközi üzemtörténeti konferencia rövidített jegyzőkönyve*. Budapest 1974; 13. *history of the company and general history*. Berlin 1965; 14. *A. M. Gorki and the history of factories and plants*. Berlin 1964; 15. *Guidelines for the research and propagation of factory history*. Decision of the Secretariat of the Central Committee of the SED of June 7, 1977, in: *Neuer Weg* 1977, H. 14.

Hans Radandt

1.4.3. Demography

The term "demography" comes from the Greek: It is derived from the words *de-mos* - people and *graphein* - to draw or write. Translated into German, the word "demography" is therefore roughly identical to the term "demographic science". Demography is a young science. Although scientists of antiquity (Plato, *Laws* 738 p.; Aristotle, *Politics* 1326 a) and the Middle Ages [11: 4 f.] [38: 23 f.] already dealt, albeit very sporadically, with some aspects of the population problem that were relevant under the conditions of the time, demography only gradually became an independent field of science during the period of capitalist rule. With the transition to capitalism as a society that set an immeasurable production goal with surplus value, man as an economic power took on a new weight and a completely new significance. The problems of population movement, population size and population growth had to be considered more and more in connection with the goal and the means of the capitalist mode of production. This new way of looking at things provided the impetus for a new approach to the problem of population, in two directions, the meaningful combination of which later gave rise to the scientific discipline of demography.

Firstly, in line with the needs of developing capitalism for numerical representations of mass social processes, the recording of population processes also became an increasingly urgent necessity. As early as the 17th and 18th centuries, scientists were interested in the numerical study of the population. Graunt (1620-1674) used the Bills of Mortality to observe certain numerical orders in the areas of birth and mortality. [7] [11: 9] [21: 301] In 1693, Halley (1656-1742) used the ecclesiastical

[156] Documents on mortality in Breslau produced the first mortality table. [8: 596] Süßmilch (1707-1767) made estimates of the size of the world population, its growth rate and its order of growth. [31] [21: 301] The further development of methods for recording social mass phenomena and their recurrence led to the emergence of statistics and especially population statistics as an independent scientific discipline in the course of the 19th century. Population statistics describe the structure of the population, its breakdown by age and gender, marital status, occupation, etc. It examines the changes in the population as expressed in births, deaths, marriages and migration. [23: 2] It thus describes the population according to all ascertainable characteristics. The work of Lexis [19], R. Kuczynski [16] [17] [18] and Lotka [20], among others, contributed significantly to the perfection of the method. The emergence and development of statistics as an indispensable prerequisite for the modern sciences marked a turning point in the history of science. It is not without good reason that this period is referred to as the statistical era.

Secondly, parallel to this development and independently of it, the study of the nature of population movement, its regularity or regularities and its dependence or independence on social and economic processes also became increasingly important. Scientists, especially economists, increasingly included the population problem in their field of study. The physiocrats, above all Quesnay [25: 240 ff.], and later the classics of bourgeois political economy, Smith [29: 215 f.] and Ricardo [26: 63 ff.], also examined the population problem in connection with economic processes and political-economic categories in their economic writings. The problem of the connection between wealth, poverty and population growth as a "natural law" phenomenon was addressed by a number of scientists, including Malthus [22]. Over time, further research into the regularity and laws of population growth led to the emergence of numerous schools, such as the biological, economic and cultural schools. However, none of these schools was able to present a satisfactory and comprehensive population theory.

Thus, the two directions of population research that emerged under capitalism developed very differently. The first, i.e. making population processes tangible for our conscious comprehension, i.e. population statistics, became ever more precise and perfect due to the constant development of statistical technology and the methods used to collect and record data. The second - population theory - has remained undeveloped to this day despite all the efforts of population scientists. Under these circumstances, demography, the study of population, proves to be a peculiar science: it is a science that has perfect methods for obtaining its data and a proven system of rules, but it lacks a system of statements, a comprehensive theory. [14: 18] However, the lack of theory does not mean that demography as a science does not have its own subject matter. This mistake is often made by bourgeois and sometimes also Marxist scientists, for example when they confuse demography with population statistics.

Demography was originally concerned with the study of the laws of the human reproduction process in the statistical era, i.e. in so-called modern societies. In the meantime, however, it has extended its field of research to the pre-statistical era and also investigates the laws of [157] human reproduction in all pre-capitalist stages of human history. [35: 9]

This investigation of the laws of the human reproduction process cannot proceed in isolation from the surrounding milieu. The study of the interrelationships between the process of human reproduction and the social milieu as the specific condition for the existence and reproduction of human beings represents the core, the essential task of demography. The practical significance of demographic research lies in the creation of the theoretical basis for a scientifically founded population policy. In these studies, demography makes use of statistical methods, especially population statistics. In this sense, the latter is the indispensable tool of demographic research. [21: 12] [23: 2]

Marxist-Leninist demography assumes that every economic form of society has its specific population laws. [MEW 23: 660] [MGr 498] [LW 1: 471]

"Man lives in different kinds of *social organisms*, succeeding one another in history, which are determined by the system of social production and consequently also of distribution. The conditions for the multiplication of human beings depend directly on the structure of the various social organisms, and therefore the law of population must be studied separately for each such organism." [LW 1: 471]. [LW 1: 471] The study of the reproduction process of human beings in the various social organisms that have replaced each other in history links demography with all social science disciplines and above all with economic history and political economy. In this

It is in this context that demography also gains its theoretical substance. According to the Marxist-Leninist view, the human being is to be studied not only as a social being, but also as a biological being. Human-related processes, including the process of reproduction, have their biological aspects, even if the biological aspects are increasingly socially modified as people become more and more social. However, modification does not mean negation. [30: 8] The discovery of the laws of population therefore also presupposes a connection between demography and the natural sciences. The natural science and social science aspects of the laws of population are therefore not two isolated aspects, precisely because man as a bio-social being is unified (Frolov in [37: 1320]). The representation of the regularities and the system of the laws of human reproduction with their manifoldness is the result of a complicated process of cognition that takes place in the unified context of social and natural sciences. In addition to the specific laws of one mode of production, the process of reproduction is also influenced by those laws that operate in a series of modes of production or even in the entire course of human history (see [33: 15]). Thus the field of demographic research is not limited to the present, but extends into the deepest historical past of mankind. This has led to the development of a number of borderline sciences, such as palaeodemography, historical demography, demographic history, etc., which deal with population movements in history and are also consulted for the study of population movements in the present.

In the study of population movements in history, in the elaboration of different types of human reproduction processes and their [158] regularities, a certain periodization is indispensable. According to the character of the economic basis, one generally distinguishes three main periods in demographic history [3: 10] [4: 15] [6: 29] [32: 633]. In the first period, which begins with the appearance of humans on our planet and extends to the Neolithic Revolution, *hunting and gathering* form the ecological basis of society. The *Neolithic Revolution marked the beginning of* a new era in human history: Over the course of millennia, the agricultural revolution gradually spread to different regions of the world, leading to the establishment of class societies and forming the economic basis of human life until the emergence of capitalism. With the *Industrial Revolution* in the 18th century, the economic basis of society underwent another qualitative transformation.

Hunting and gathering, agriculture and industry represent three qualitatively different basic types in the development of the productive forces. As the foundations of the economic order, they have an extraordinarily stable and enduring character. The respective stable and enduring demographic systems develop according to the requirements, possibilities and limits of the economic basis. In demographic history, a distinction is made between three main types of reproductive process, namely the primitive type, the primitive type and the modern type, which correspond to the respective periods mentioned. [A characteristic of all types - viewed over the long term - is a certain balanced relationship between the determinants of population movement.

The transformation from one type to another takes place during a transition phase. In this phase, the relative balance between fertility and mortality is initially destroyed and the population grows "explosively". The determinants of population movement only gradually adapt to the requirements of the qualitatively new conditions of the social environment. As a result of this transition phase, a new type of high-level population reproduction emerges on the basis of the change in the economic order. Viewed from this perspective and in the long term, the population movement in history shows an evolutionary development with two interruptions in continuity. These interruptions are known as *demographic revolutions*. The first initiated the transition from the original type of population reproduction to the primitive type, while the second gave rise to the modern type of human reproduction.

The archetype of reproduction corresponds to the conditions of hunting and gathering as the basis of the economic order. At this lowest stage in the development of the productive forces, people were only able to satisfy their modest, minimal subsistence needs with the utmost effort on the part of both sexes. These conditions of production required relatively large spaces for a small number of people (see [MGr 501]). People lived together on the basis of hordes as loosely organized structures that had to be small for their purpose. The number of members of the horde was deliberately kept small because the children were dependent for years on the natural food coming directly from their mothers. This absolute dependence of the children on their mothers limited the women in their work to maintain themselves and the horde. The feeding and rearing of a child only took place on the condition that the mother had sufficient food and that the last child was already sufficiently developed to sustain itself. [22: 41] If this was not the case, the newborn was killed. [23: 23] During this long period, mortality and especially infant mortality was high. Since the species remained intact, the birth rate had to average just above the death rate. The population growth rate for this period is given as an average of 0.004 percent per year or even less. Estimates show that the world population in this period amounted to a maximum of 10 million people. [1: 29] [4: 15] With the neolithic revolution and the transition to agriculture, the old continuity of the population movement broke down.

The expansion of the food supply associated with agriculture offered better livelihood opportunities for a growing population. Population growth, in turn, had a forcing effect on the expansion and extension of agriculture. This correlation is limited by the limited development capacity of the productive forces in agrarian societies. In these societies, the manual labor of adults and children in agriculture is widespread, i.e. people are involved in the production process from an early age. Children are becoming increasingly important economically. A very high birth rate characterizes the human reproduction process in agrarian societies. The birth rate must also be high in this period because this compensates for the devastating effects of mortality peaks which, because mortality and its development are largely uninfluenceable, frequently occur in the relatively densely populated rural areas. Furthermore, in contrast to the gathering and hunting societies, the overbuilding factors of these societies require a high birth rate. In the period between the Neolithic and Industrial Revolutions, the world population doubled six times, reaching 700 million. The average growth rate in this period was 0.04 percent per year, ten times higher than in the pre-Neolithic period.

With the Industrial Revolution and the resulting upheavals and changes in the social milieu, a completely new type of human reproductive process gradually emerged over a relatively short transition phase, in which it is possible to control mortality and childbirth (see 2.5.4.).

The investigation of the regularities of the individual type of reproduction forms an essential building block in the cognitive process of the system of population laws, in addition to the investigation of those laws that are effective in the entire course of demographic history. Nevertheless, it is not enough to have recognized these in order to uncover the population laws of the individual historical-concrete modes of production. The particularities of the respective historical-concrete population movement are shaped by the laws that arise from the character of the prevailing relations of production, i.e. the concrete investigation of the population movement presupposes knowledge of different types of population laws and their dialectical interaction. This investigation in turn requires an adequate methodology. [13: 27] Thus, at the present stage of development of demography, the main task of Marxist-Leninist demography is the elaboration of a self-contained population theory and methodology. [15: 1618]

Literature:

1 *Bates, M.*: Die überfüllte Erde. Munich 1954; 2. *Bogue, D.*: Principles of Demography. New York/London/Toronto 1969; 3. *Cipolla, C. M.*: Wirtschaftsgeschichte und Weltbevölkerung. Munich 1972; 4. *Coale, A. J.*, in: The Human Population. San Francisco 1974, p. 15 ff; 5. *Cox, P.*: Demography. Cambridge 1966; 6. *Desmond, A.*, in: The Population Crisis and the Use of World Resources. The Hague 1964, p. 27 ff; [160] 7. *Graunt, J.*: Natural and Political Observations upon the Bills of Mortality. London 1665 (Reprint in: Journal of the Institute of Actualities 1964 [90], H. 384); 8. *Halley, E.*, in: Philosophical Transactions of the Royal Society 1693 (XVII), H. 196, p. 596 ff.; 9. *Hollingworth, T. H.*: Historical Demography. London 1969; 10. *Kautsky, K.*: Vermehrung und Entwicklung in Natur und Gesellschaft. Stuttgart 1910; 11. *Keyfitz, N.*: History of Demographic Theory. Belgrade 1965 (UNO World Population Conference WPC/WP/284); 12. *Khalatbari, P.*: Overpopulation in the developing countries. Berlin 1968; 13. Population dynamics and society. Berlin 1977; 14. *Kuczynski, J.*, in: JWG 1974, T. I, p. 11 ff.; 15. *Ders.* in: Weltbühne 1972 (67), H. 5, p. 1617 ff.; 16. *Kuczynski, R. R.*: The Balance of Births and Deaths. Vol. 1-2, Washington 1928-1931; 17 *Ders.*: Fertility and Reproduction. New York 1932; 18. *Ders.*: The Measurement of Population Growth. New York 1936; 19. *Lexis, W. H. R. A.*: Einleitung in die Theorie der Bevölkerungsstatistik. Berlin 1875; 20. *Lotka, A. J.*: Théorie analytique des associations biologiques. T. 2, Paris 1939; 21. *Mackenroth, G.*: Bevölkerungslehre. Heidelberg/Berlin (West)/Göttingen 1953; 22. *Malthus, Th. R.*: Eine Abhandlung über das Bevölkerungsgesetz. Vol. 1, Jena 1924; 23 *Mobert, P.*: Bevölkerungslehre. Jena 1929; 24 *Most, O.*: Bevölkerungswissenschaften. Berlin/Leipzig 1913; 25. *Quesnay, F.*: Ökonomische Schriften. Vol. I/1, Berlin 1971; 26 *Ricardo, D.*: Grundsätze der politischen Ökonomie. Berlin 1959; 27 *Sauvy, A.*: Théorie générale de la Population. Vol. 1, Paris 1963; 28 *Sève, L.*: Marxism and the Theory of Personality. Berlin 1973; 29 *Smith, A.*: An Inquiry into the Nature and Causes of the Wealth of Nations. Vol. 1, Berlin 1963; 30. *Stephan, B.*: The Evolution of Social Structures. Berlin 1977; 31. *Süßmilch, J. P.*: Die göttliche Ordnung in der Veränderung des menschlichen Geschlechts. Berlin 1972; 32. *Ulanis, B. S.*: Narodonasselenie. Moscow 1976; 33. *Valentei, D. I.*, in: Contemporary World. Moscow 1971, p. 6 ff; 34. *Wischniewski, A. G.*, in: SW/GB 1973, H. 6, p. 633 ff.; 35. *Kurs Demografii.* Moscow 1967; 36. *Sistem znanii o narodonasselenii.* Moscow 1976; 37. *Soziale und biologische Faktoren der Entwicklung des Menschen*, in: SW/GB 1972, H. 12, p. 1309 ff.; 38. *UNO*: The Determinants and Consequences of Population Trends. Vol. 1, New York 1973.

Parviz Khalatbari

1.4.4. Ethnography

As a historical discipline, ethnography unites folklore and ethnology under a common subject definition: research into the history of the culture and way of life of an ethnic group (tribe, people, nation, etc.) in the concrete course of history determined by the respective social conditions, with special consideration of the working classes and strata and their share in the general progress of culture. [2] [7] [8] [11] [16] [19] In their objectifications, culture and way of life are testimonies of this process, which manifest themselves in the most diverse ways and whose heuristic value consists in their contribution to the realization of the regularities in the course of history. [3] [9] [12] In the Marxist-Leninist understanding of science, ethnography is not a description of facts, but a synthesis between theoretical concerns and historical factual research. In order to achieve appropriate results in this sense, ethnography requires the application of a complex method, i.e. the inclusion of research results from neighboring historical disciplines, among which economic history in general and the history of productive forces in particular occupy one of the most important places. [6]

This applies in particular to the constitutive area of "work and economy" [5] in ethnography, which is essential for the understanding, classification and interpretation of objectifications of the culture and way of life of the working classes and strata of a people. For it is this area that defines the individual, the social class, the class through daily work,

by the socio-economic situation under whose conditions the work must be performed. This basic fact applies equally to the peasant and the craftsman under feudalism, to the proletarian under capitalism and to the member of the working class and the cooperative farmer under socialism. But it is also relevant for social classes and ethnic groups outside Europe, regardless of whether they have developed the basis for the formation of specific forms of culture and way of life as nomads, hunter-gatherers or cultivating populations.

Ethnography is thus also a discipline that enriches economic science when it consciously focuses its research on the fact that the most important element in the social system of productive forces is the human being - and in particular the member of the working classes and strata. It is not the working tool as such, the work to be done with it or the way of working or other objectifications, but the creative human being within the relations of production given to him or to be changed by him and in the complexity of culture and way of life [10] [18] [20] that is the pivotal point of ethnographic-social science research. In other words: The essential concern of cultural-historical ethnography, which is necessarily concerned with cooperation with other disciplines, is to investigate how, in all historical periods and in the present, working people in particular relate to the "situation" resulting from socio-economic conditions and develop the specific elements of their way of life from this as a reflection of or reaction to the "situation". Engels described the process of this interaction in a classic way in his work "The Situation of the Working Class in England", when he formulated it after describing the "situation" found there:

"Let us then see what has become of the workers themselves under such circumstances, what kind of people we have in them, what their physical, intellectual and moral condition is like." [MEW 2: 324] The catalog of topics Engels then dealt with is exemplary and still of undiminished topicality for research, because it can be applied both to the actual historical periods and to the present.

Engels' sentence is also of methodological-theoretical value for the cooperation between economic history and ethnography, as it applies in the same way to the constant relationship between situation and way of life in all social formations and also for all ethnic groups outside Europe and is therefore worthy of generalization.

If economic history concentrates primarily on the investigation of the "situation" in special research enterprises, it is supplemented and enriched by the ethnographic research objective "way of life", which can also be articulated in the fact that new aspects, such as ethnic cohesion, the role of tradition in certain social classes or occupational groups (e.g. miners), innovations and obstacles to the development of productive forces, etc., can also influence its research approach from the outset, can determine their research approach from the outset. At the same time, however, the demand to intensify the cooperation between economic history and ethnography [1] [4] [13] [14] [15], which has already been practiced well in advance [162], is gaining in importance, namely in the way of defining research topics relevant to all social formations, which are not only fruitful for one of the two disciplines per se, but also have a considerable socio-scientific benefit.

Literature:

1. *Bentzien, U.*: Hook and Plow. Berlin 1969; 2. *Engelberg, E.*, in: ZfG 1973 (XXI), H. 8, p. 970 ff.;
3. *Hanke, H.*: Kultur und Lebensweise im sozialistischen Dorf. Berlin 1967; 4. *Jacobeit, W.*: Schafhaltung und Schäfer in Zentraleuropa bis zum Beginn des 20. Jahrhunderts. Berlin 1961; 5. *Ders.*: Bäuerliche Arbeit und Wirtschaft. Berlin 1965; 6. *Ders.* in: JWG 1966, T. I, p. 175 ff.;
7. *Ders.* in: Kontinuität? Historicity and duration as a problem of folklore. Berlin (West) 1969, p. 67 ff.;
8. *Ders.* in: In memoriam António Jorge Dias. Lisboa 1974, vol. 2, p. 273 ff.;
9. *Jacobeit, W./Mohrmann, U.*, in: Lëtopis, Reihe C, 1968/69, H. 11/12, p. 94 ff.;
10. *Jacobeit, W./Papendieck, S.*, in: Neue Museumskunde 1977 (20), H. 3, p. 176 ff.;
11. *Mohrmann, U.*, in: ZfG 1974 (XXII), H.

7, p. 748 ff.; 12. *Mühlberg, D.*, in: Weimarer Beiträge 1976 (XXII), H. 1, p. 5 ff.; 13. *Müller, H. H.*: Märkische Landwirtschaft vor den Agrarreformen von 1807. Potsdam 1967; 14. *Plaul, H.*: Landarbeiterleben im 19. Jahrhundert. Berlin 1979; 15. *Rach, H. J.*: Bauernhaus, Landarbeiterkaten und Schnitterkaserne. Berlin 1974; 16. *Schuppan, P.*, in: ZfG 1974 (XXII), H. 12, p. 1359 ff.; 17. *Steinitz, W.*, in: Deutsches Jahrbuch für Volkskunde 1955 (1), p. 269 ff.; 18. *Tokarew, S. A.*, in: Ethnologia Europaea 1973 (VI.2), p. 163 ff.; 19. *Weißel, B.*, in: Jahrbuch für Volkskunde und Kulturgeschichte 1973 (NF 1), p. 9 ff.; 20. *Kultur und Lebensweise des Proletariats*. Berlin 1973 (introduction).

Wolfgang Jacobeit

1.4.5. Geography

As one of the oldest scientific fields, geography (Greek: description of the earth) has gone through numerous stages of development up to today's system of geographical sciences. Today's system of geographical sciences [5] [10: 13 ff.] is made up of several disciplines and sub-disciplines. The central concerns of this system are geographic analyses of territories and natural areas or their sub-areas and the resulting increase in knowledge about their legal structure and course of development as well as geographic orientations for their use and design. Socially relevant analyses focus primarily on the territorial structures of population, production, infrastructure and resources, which are the main components of the complex territorial structure. Tasks, solutions and results are inevitably shaped by the respective socio-economic conditions; for example, the tasks of territorial planning in modern capitalism as state-monopoly spatial planning in the interests of the monopoly bourgeoisie [6: 9 ff.] differ fundamentally from those of socialist territorial planning in the interests of the working people and their economy [18].

The qualitative transformation of geographical disciplines under socialism from a purely descriptive aspect [163] [3: 21], which was noticeable until the recent past, to a practical orientation [10: 28 ff.] [7: 3 ff.] [15: 257 ff.] [2: 5 ff.] led to the concept of constructive geography [9: 11 ff.] in the USSR. The development of geography by bourgeois scientists has recently been accentuated - in a similar context - partly under the aspect of "spatial organization". [1]

In terms of the complexity of the territory, the system of geographical sciences comprises two main groups: political and economic geography, which is part of the social sciences and includes population, settlement, industrial, agricultural and transportation geography, and physical geography, which is part of the natural sciences and includes geomorphology, climatology, hydrography, soil and vegetation geography. Each of these main groups examines a complex of sub-structures or their conditions: the economic-geographical complex, which is primarily based on social conditions, and the physical-geographical complex, which encompasses natural conditions. [10: 16 f., 24 f.] Each of the branches of science listed within the main groups examines a sub-structure of the territory or natural area, whose close interdependence with the other spatial sub-structures requires an open view of the neighboring structures or the corresponding branches of science.

Cross-sectional aspects, such as the problem of industrial and settlement agglomerations or environmental pollution, require interdisciplinary work. For example, several branches of political and economic geography and physical geography work closely together in the study of agglomerations, often in contact with their neighboring sciences outside of geography. This is done with regard to the very complicated structure of industrial sites and settlements, transportation routes and agricultural areas, including those for the local supply of the population in the metropolitan area, recreational areas, forests, areas of importance for water management, etc. in metropolitan areas.

The most mature results of interdisciplinary complex-territorial analyses and designs are available in the USSR. They are an expression of the economic-geographical-mathematical modelling of regions and territorial production complexes, ranging from the identification of geographical units, the analysis of the conditions for the development of their productive forces and the optimization of the basic relations between their economic elements, as well as between these and the population and the environment as a whole, to the optimization of production and its territorial expression, the settlement system and measures to protect the reproductive capacity of natural resources.

The geographical investigation of each substructure of the territory or natural area provides a regional overview. The combination of the investigation results of several substructures of an area or the regional overviews resulting from them leads to a growing completion of the regional view, to regional geography.

For the economic historian, both the results of geographical studies of individual spatial substructures and their identification by regional geography can provide useful information and overviews. After all, the present state of the structures on which the geographical studies are largely based is the geographically comprehensible result of social and natural, i.e. also historical processes, the effects of which, of course, overlap in many ways in the complexity of the space, interpenetrate and thus also reshape each other.

[164] Just as the geographer, especially the scientist working in the field of political and economic geography, must have an overview of the historical and especially economic-historical developments leading to the current, socially determined territorial structures in order to analyze them, the economic historian can also gain starting points for the historical lines of development that co-determine them by recognizing the current territorial structures or individual elements of them. Indicators for these historical lines of development in the current territorial structures are, for example, in settlement geography with regard to the time of origin and the development conditions of towns and villages, the type of settlement networks and their centers, individual functions of settlements and their expression in the settlement image as well as settlement layouts and functional divisions of the settlement areas or their relics from earlier times; in industrial geography, earlier territorial production structures and their dominant location factors, such as above-average exploitation opportunities in capitalism, etc., are often documented, in the current spatially differentiated production structures of industry, for which, in turn, the transferred basic funds form territorially significant components for the formation of locations and their specializations; in vegetation geography, secondary vegetation can be informative with regard to earlier land uses.

In such contexts, house and field forms, mining installations, slag heaps, pond and irrigation systems, among other things, can also be recorded as elements that have often been preserved from the past and now belong to contemporary territorial structures.

The connection between historical processes and the territorial and natural space structures of the present as the central objects of work in the system of geographical sciences has given rise to the question of whether this system should include a historical geography or a historical economic and a historical physical geography in the interest of reconstructing earlier spatial structures. For a long time, there was a noticeable reluctance to address this question. With regard to historical economic geography, this can be explained by the fact that for a long time socially oriented geography, especially bourgeois cultural landscape research, was largely or completely oriented towards historical geography anyway. In the scientific field of geography, the paleogeographical questions and methods that emerged early on worked against a separate historical geography. In other words, the research areas that were possible for historical economic or physical geography were already being worked on in the same way under different labels.

The question of historical geography and its sub-areas only became more urgent with the increasing focus on the present in geographical research, which was associated with the implementation of the historical method [8: 135 ff.] rooted in dialectical and historical materialism and the corresponding historical principle [13: 189 ff.] in the geographical sciences. In the field of economic geography, historical-cartographic works [11] [16] [17] emerged, many of which drew on older schools, as well as very differently oriented attempts to trace the historical location development of the economy in extensive works [4] and brief outlines [12: 79 ff]. Today, historical geography in the context of the social sciences is predominantly understood in the sense that it endeavors to explain the spatial complexes of the present from their historical conditions; it does not aim to produce numerous **historical-geographical** cross-sections, but rather longitudinal historical-geographical sections that are meaningful for the present. [14: 18 ff.] In the natural sciences, an analogous development has taken place with increasing paleogeographical studies, without the concept of a historical physical geography becoming common; in it, the assessment of long-term changes in nature and their influences on the environment of people in the present have a particularly high weight.

Literature:

1 *Abler, R./Adams, J. S./Gould, P.*: Spatial Organization - the Geographer's View of the World. London 1972; 2. *Gerasimov, I.*, in: Soviet Geographical Studies. Moscow 1976, p. 5 ff.; 3. *Hartshorne, R.*: Perspective on the Nature of Geography. Chicago/London 1969; 4. *Junge, R.*: Weltgeschichte der Standortentwicklung der Wirtschaft in der Klassengesellschaft. Vol. 1, Berlin 1961; 5. *Kalesnik, S. V.*, in: Naučnye doklady vysšej školy, geologo-geografičeskie nauki 1959, H. 1, p. 4 ff.; 6 *Kohl, H.*, in: Zur Analyse der Raumordnung im staatsmonopolistischen Kapitalismus. Berlin 1968, p. 9 ff.; 7. *Ders.* in: Peterm. Mitt. 1968 (112), H. 1, p. 3 ff.; 8. *Markov, K. K.*, in: Sowjetwissenschaft 1948, H. 3. p. 139 ff.; 9. *Preobraženski, V. S./Abramov, L. S.*, in: Izv. ANSSSR, Serija geografija 1976, H. 1, p. 11 ff.; 10. *Sanke, H.*: Entwicklung und gegenwärtige Probleme der Politischen und ökonomischen Geographie in der DDR. Berlin 1962; 11. *Schlüter, O./August, O.*: Atlas des Saale- und Mittleren Elbegebiets. T. 1-3, Leipzig 1959-1961; 12. *Schmidt-Renner, G.*: Elementare Theorie der ökonomischen Geographie. Berlin 1961; 13. *Shirmunski, M. M.*, in: Geographische Berichte 1959 (4), H. 13, p. 189 ff.; 14. *Wegner, E.*: Beiträge zu Problemen der Historischen Geographie und der Geographischen Wirtschaftsgeschichte in der DDR. Berlin 1970, p. 9 ff.; 15. *Zimm, A./Hönsch, F.*, in: Geographische Berichte 1975 (20), H. 4, p. 257 ff.; 16. *Historisch-geographisches Kartenwerk*: Britische Inseln, Frankreich, Belgien, Niederlande, Luxemburg. Leipzig 1960; 17. historical-geographical map series: India. Leipzig 1958; 18. *territorial planning*. Berlin 1976.

Horst Kohl

1.4.6. History of the labor movement

The history of the workers' movement is the history of the struggle of the working class against capitalist exploitation and oppression, against imperialism, militarism, fascism and war, against bourgeois ideology and its influence in the workers' movement, based on the laws of social development. It is the history of the establishment of the dictatorship of the proletariat and the building of the socialist social order. In the struggle against capitalism, the workers' movement gains the experience that enables it to lead the working class and its allies in the socialist revolution to establish its own power.

With the victory of the working class in the socialist revolution, a new phase in the history of the workers' movement begins. The establishment of the new social order, the building of a socialist and communist society, now becomes the main content of the workers' movement and consequently of its history.

The history of the labor movement is the history of the largest, most comprehensive and most successful revolutionary movement in the development of human society. All revolutionary movements before it - whatever goal they pursued - could not be realized through their

The only historical achievement of the revolutionary revolution was that one exploitative order was replaced by another, higher one, only that a social order with higher labor productivity finally triumphed. Only the working class under the leadership of its revolutionary party eliminated the exploitation of man by man with its revolutionary victory.

The history of the workers' movement is therefore first and foremost the history of the emergence and development of the organizations of the working class, which the class creates to lead the struggle for the improvement of its situation, for its own power and for the construction of the new, socialist social order. It is therefore above all the history of the revolutionary party of the working class as the decisive organization of the workers' movement, which the working class needs in order to be able to win. It is the history of the appropriation and dissemination of the scientific world view of the working class.

The history of the workers' movement also includes the history of the trade union movement, consumer cooperatives, the workers' sports movement and other mass workers' organizations, as well as the history of the various bourgeois currents in the workers' movement.

The history of the labor movement is an internationalist history. This follows from the internationalist character of the working class according to its position in production and, consequently, from the internationalist character of the revolutionary party of the working class as well as from the internationalist character of the class struggle between capital and labor.

The history of the workers' movement is a special discipline of historiography that has become increasingly important within this discipline since its academic foundation, especially since the victory of the Great October Socialist Revolution.

Working and struggling people are at the heart of the history of the labor movement. They are the decisive productive force in the development of human society. He produces all the wealth of modern society. The manner of this production and its development are the main subject of economic history. Consequently, the history of the labor movement is not possible without economic history, just as the economic history of the period since the 18th/19th century requires the history of the labor movement in order to reach the necessary scientific and political conclusions. The day-to-day work of working people in production, their daily struggle to improve their situation and the shaping of the new, socialist society are a decisive component of economic history and the history of the workers' movement. Economic history is therefore a necessary underpinning of the history of the labor movement, just as the history of the labor movement sets decisive political and scientific guidelines for economic history.

Academic historiography on the history of the labor movement began with Marx and Engels. They repeatedly dealt with the experiences of the German working class and not only with these. The revolution of 1848/49 and the Paris Commune of 1871 took center stage. Marx and Engels also provided the first complete history of the first revolutionary party of the proletariat. Since then, the history of the workers' movement has covered the class struggle of the proletariat and the struggle of its revolutionary party in all countries. The literature that has appeared since Marx and Engels' first works is incalculable. [167] For the development of historiography on the history of the German workers' movement, reference should only be made to the works of W. Liebknecht and Bebel as well as Mehring as the most important historian of the German workers' movement after Marx and Engels. This tradition of Marxist historiography was continued by the German Communist Party in the years of the Weimar Republic and in the fight against the fascist Hitler regime, in opposition to revisionism. After Germany's liberation from fascism and the founding of the German Democratic Republic, the Socialist Unity Party of Germany devoted great attention to the history of the workers' movement.

In 1963, the "Grundriß zur Geschichte der deutschen Arbeiterbewegung" (Outline of the History of the German Labour Movement) was published, which summarized the results of previous research in this discipline and provided the basis for the most comprehensive presentation of the history of the German labour movement to date. This account was published in eight volumes in 1966. Numerous research results were and are published in the journals "Beiträge zur Geschichte der Arbeiterbewegung" and "Zeitschrift für Geschichtswissenschaft". In 1974, they were published in the basic outline "Klassenkampf - Tradition - Sozialismus. From the beginnings of the history of the German people to the shaping of the developed socialist society in the German Democratic Republic". 1978 saw the publication of "Geschichte der SED. Abriß" was published in 1978.

For decades, J. Kuczynski published his almost 40-volume work "The History of the Condition of the Workers under Capitalism", the prehistory, so to speak, of the victorious class. This work also covers the history of the labor movement in Germany, England, France and the United States of America - including the colonies - and attempts a synthesis between economic history and the history of the labor movement.

The history of the labor movement is - because it is a scientific history - a deeply partisan history and therefore also a militant one. At the same time, it is a living history, as its lessons from the past point to the future.

What Lenin wrote in May 1914 applies to them: "The class-conscious workers, as they lead their movement forward, are constantly looking at the road traveled by the workers' movement and constantly reflecting anew on whether this road is the right one and whether something can be done better." [LW 20: 293] In this sense, the history of the labor movement is the memory of the working class.

Lothar Berthold

1.4.7. Historical science

Historical science without economic history is blind to elementary facts, one could basically say, paraphrasing Kant [5: 95], and conversely, economic history without an understanding of the whole of social development is empty, it lacks a sense of the concrete dialectic of history. However, this necessary relationship between historiography and economic history has changed in the course of history itself. This change was determined, on the one hand, by the significance that the various classes attributed to historical knowledge in general and, on the other, by how they assessed the influence of economic processes on historical development.

[168] In the history of the Peloponnesian War by Thucydides, a high point of ancient historiography - Hegel [4: 36] described this work as the absolute gain that humanity has from that battle - the significance of economic factors for warfare was naively and empirically taken into account. However, this interest in economic facts was initially lost again when the first attempts were made to understand the history of mankind as a whole. These attempts initially took a religious form, for example when Christianity portrayed history as the realization of a plan of salvation; later they appeared in the form of idealistic philosophies of history. However, a certain change occurred with the emergence of the Enlightenment. The bourgeois emancipation movement against feudalism, absolutism and clericalism viewed the history of mankind as a process of the progress of reason, which would lead to the implementation of civil liberties and equality before the law. Although this conception of progress was still idealistically limited, the Enlightenment discovered that historiography could acquire essential significance for ideology and worldview, and within the aforementioned limits, economic-historical knowledge also contributed to the fulfillment of the social task of Enlightenment historiography: Economic events were given greater importance than before for history. Voltaire turned against the previous limitation of historiography to the history of war, diplomacy and the church and turned his attention to the history of culture, not least the history of material culture. For him, "the century of Louis XIV" was also an age of economic

Progress. Möser, the first German historian to deal specifically with economic and social history, saw the "common landowners" [6: IX] as the social bearers of the emerging bourgeois nation. The Enlightenment view that history was essentially a process of the progress of reason, but that economic facts were significant insofar as this progress was expressed in them, also had an impact on classical bourgeois philosophy, especially Hegel's philosophy.

Historiography and economic history were closely linked by leading representatives of the bourgeois-progressive current in German historiography at the beginning of the bourgeois transformation. Niebuhr applied source-critical methods to the history of antiquity, especially agricultural history. Böckh wrote a classic work on the Athenian state budget. When Schlosser, von Rottek and Gervinus wanted to justify bourgeois-liberal views historically, they also took the progress of the economy into account.

At the same time, however, von Ranke was already establishing the bourgeois-conservative historicism that would shape bourgeois German historiography for a century. Although Ranke also transferred the application of source-critical methods to the history of modern times, and this also benefited economic history, he rejected the idea of historical progress: for him, "unconditional progress" only existed in "the more material relationships". [7: 66] Thus the separation between historical science and economic history, which became characteristic of later bourgeois historiography, was already established in the methodological approach.

With the founding of scientific communism by Marx and Engels, the history of humanity was recognized as a progressive sequence of social formations that leads to a communist society through the thoughts and actions of people in antagonistic class societies by way of class struggle. [LW 1: 133] In two respects, this resulted in a fundamental change in the relationship between historiography and economic[169] history. On the one hand, it was now recognized that the laws of material production are the fundamental laws of social development, i.e. that economic history has to deal with fundamental historical facts. By showing that society is a whole and that the determining element for the movement of society is the movement of material production, Marx and Engels replaced the mere coexistence of historical science and economic history with a necessary interrelation. On the other hand, Marx and Engels proved that the working class is the only social force that has an unrestricted interest in uncovering these laws and that the historical element forms an essential aspect of its social consciousness. The realization of the whole of historical development acquired a new, qualitatively greater ideological significance. Economic history enters the social consciousness as an important component of historical science, but only in this context and through this mediation. With the establishment of scientific communism, economic history became an independent element and at the same time an essential component of historical science, but its ideological and consciousness-forming potential only became effective within the overall picture of history.

The strengthening of the workers' movement and the break-up of the internal contradictions of bourgeois capitalist society led to changes in the relationship between economic history and historiography in bourgeois historiography in the second half of the 19th century. When the laws of history began to turn against the bourgeoisie, bourgeois historians now denied the existence of historical laws in the areas that were important to them, i.e. above all in politics and culture. Historiography should therefore concentrate on describing, understanding and interpreting individual historical phenomena. For economic history, on the other hand, the existence of generalities was conceded. Precisely because economic history could uncover regularities, it was regarded as a mere secondary and auxiliary science of history. This attitude was particularly pronounced in German historiography, but also influenced the more positivist-oriented bourgeois historiography in the

Anglo-Saxon countries and in France. [3: 11 ff.] Forced into the role of an outsider, without any great social prestige in the system of bourgeois social sciences, economic history was able to benefit from this special position to a certain extent: It maintained a certain methodological independence from the prevailing dogmas, in particular the "individualizing" method [2: 136 ff.], it exerted an attraction on bourgeois anti-imperialist forces and offered them leeway, but it was also particularly readily exploited from the end of the 19th century onwards for the promotion of opportunism in the labour movement - a task for which the prevailing directions of bourgeois historiography seemed little suited.

With the further development of Marxism by Lenin and in the world-historical epoch of transition from capitalism to socialism initiated by the Great October Socialist Revolution, the relationship between Marxist historiography and economic history, as it had emerged with the establishment of the materialist conception of history, continued to develop. In socialist society, the world view of the working class became the dominant world view. The science of history acquires great social significance, [170] because it contributes significantly to the development of the socialist consciousness of the working class and the people. The necessary elaboration and dissemination of a scientifically based view of history promotes both the integration and specialization of historical science and its individual fields as well as cooperation with other sciences and philosophy. In this process, economic history supports the development of historical science as a whole through its specific methods and results (not least in researching the history of the socialist economy) and, conversely, is enriched by the new tasks and questions of historical science.

With the beginning of the third stage of the general crisis of capitalism, the relationship between bourgeois historiography and bourgeois economic history also changed.

[9] Weber's views, which had already been formulated at the turn of the century, had a concept-forming effect. [8: 179 ff.] He had described the construction of ideal types as the most important methodological instrument of the economic and social sciences, whereby these ideal types represented mere modernist tools that did not need to have an equivalent in reality. This attempt to create a common basis between historicism and positivism, from which the battle against Marxist-Leninist historiography in particular could be waged, has been taken up by leading currents in contemporary bourgeois historiography. [1: 3] Under the sign of a positivist-agnostic idealism, a rapprochement between economic history and historiography is taking place. In terms of content, this rapprochement takes place above all on the basis of stage and growth theories - especially the theory of industrial society -' which deny the decisive role of production relations in the development of social relations. The compulsion to adapt to the new social balance of power leads to a partial realism in the presentation of individual historical contexts. Essentially, however, the outward re-approximation of bourgeois historiography and economic history has the consequence that they mutually hinder each other from advancing towards fundamental insights into the historical process.

Literature:

1 *Aubin, H./Zorn, W.*, in: *Handbuch der deutschen Wirtschafts- und Sozialgeschichte*. Vol. 1, Stuttgart 1971, p. 1 ff.; 2. *Engelberg, E.*, in: *Studien über die deutsche Geschichtswissenschaft*. Vol. 2, Berlin 1965, p. 136 ff.; 3. *Ders.* in: *Probleme der Geschichtsmethodologie*. Berlin 1972, p. 11 ff.; 4. *Hegel, G. W. F.*: *Lectures on the Philosophy of World History*. Berlin 1970; 5. *Kant, I.*: *Kritik der reinen Vernunft*. Leipzig 1930; 6. *Möser, J.*: *Osnabrückische Geschichte*. Berlin 1858; 7. *Ranke, L. v.*: *Über die Epochen der neueren Geschichte*. Halle 1925; 8. *Streisand, J.*, in: *Studien über die deutsche Geschichtswissenschaft*. Vol. 2, Berlin 1965, p. 179 ff; 9. *Geschichte und Ökonomie*. Cologne 1973.

Joachim Streisand † [171]

1.4.8. Historiography of the natural sciences and mathematics

The results of the historiography of the natural sciences and mathematics have only recently received greater attention from economic historians. Because material production in the 20th century is *quite obviously* no longer conceivable without the use of natural sciences and mathematics - the frequent use of terms such as "productive science" and "scientific-technical revolution" makes this particularly clear - the thinking of economic historians has also been directed towards the problem of the contribution made by natural sciences and mathematics to the development of material production, especially the productive forces, even in earlier times.

The common object of investigation of historians of natural science and economic historians has, however, already been clearly outlined by Marx - for science in general and the capitalist economy in particular: "The *social* productive forces of labor, or the productive forces of directly *social, socialized* (common) labor, through cooperation, the division of labor within the workshop, the application of *machinery*, and generally the transformation of the production process into the conscious *application* of natural science, mechanics, chemistry, etc., for certain purposes, technology, etc., as well as the work corresponding to all these on a large scale, etc., for specific purposes, *technology*, etc., as well as the *work* corresponding to all of these *on a large scale*, etc. (it is only this socialized labour that is capable of applying the *general* products of human development, such as mathematics, etc., to the *immediate* production process, just as, on the other hand, the development of these sciences presupposes a certain level of the material production process), this development of the productive power of *socialized labour* in contrast to the more or less isolated labour of individuals, etc. and with it the *application of science*, this *general* product of social development, to the *immediate process of production*, all this presents itself as the *productive power of capital* ..." [1: 98]

Beyond this common object of investigation, the results of economic-historical research on the socio-economic environment in which the development of the natural sciences took place are of particular importance for the historian of the natural sciences (which often, epistemologically not quite accurately, also includes mathematics), but also for the economic historian the results of research on the inner-logical development of the natural sciences, without knowledge of which the application of the natural sciences in material production and its causes must ultimately remain incomprehensible to the economic historian. Marx's research on the history of the natural sciences and technology makes it clear that an analysis of the scientific and technical foundations of the Industrial Revolution, for example, must be a necessary and integral part of its overall presentation. It should be noted that the common object of investigation and the relationships between the two scientific disciplines that go beyond this result from the concept of general labor: "General labor is all scientific work, all discovery, all invention." [MEW 25: 113 f. [MEW 25: 113 f.]] Lenin's remark that the "continuation of the work of Hegel and Marx ... must consist in the *dialectical* treatment of the history of human thought, science and technology". [LW 38: 137]

It should be noted that it was initially historiographers of the natural sciences working on the basis of historical materialism who specifically investigated these interrelationships (see above all [2] [15]), while economic historians, with a few exceptions, only paid attention to researching the history of the natural sciences as an integral part of the history of the productive forces (cf. [4] [5], forthcoming [12]) after the rediscovery of the productive forces as one of their objects of investigation.

In the process of interaction between the natural sciences and the material basis, we can distinguish several stages (see [10]), which on the one hand emerge from each other historically, and on the other hand (more or less modified) mutually condition each other in the present reciprocal relationship.

The fundamental element of the natural sciences are the experiences that people have in the working process, i.e. in their metabolism with nature [MEW 23: 192]. The process and result of the generalization of these individual and empirical experiences into "general social knowledge" [MGr 594] could be regarded as a practicable definition of science (which does not replace the still missing strictly scientific one!), since it is only here that the practical-spiritual appropriation of the world (in Marx's sense [MGr 22]) is advanced.

First of all, individual experience is generalized in the communal production process itself. For example, hunters and gatherers in primitive society already gained knowledge of anatomy and botany; the domestication of animals and cultivation of plants during the agricultural revolution was a *consciously* promoted natural selection, which of course required knowledge of what was to be selected.

However, because the producers themselves made the generalizations, this was not yet natural science in the proper sense, but only common knowledge. The elevation of communal knowledge to social knowledge presupposed that the generalizations were no longer made in the *immediate* production process, but separately from it. The economic basis for this process is the separation of physical and intellectual labor (as we find it in all pre-capitalist modes of production), which became evident in social and scientific history in the emergence of a special class of intellectual workers. This marked the beginning of the emergence of science as an institution relatively independent of material production.

The results of this scientific appropriation of the world meant a great enrichment of knowledge about nature (to name but a few: Euclidean geometry, Archimedean physics, Ptolemaic astronomy, Hippocratic medicine), but did not yet constitute the natural sciences as a *special* product of intellectual activity. Rather, this constitution was inextricably linked to the separate analysis of the process of work and reproduction (understood as a metabolism with nature that changes nature), which - apart from precursors - did not actually begin until the European Renaissance. This analysis not only brought about a qualitative improvement in technology, but also, going beyond this, the scientific revolution of the 16th/17th century, which in turn was a necessary precondition for the *general* application of the natural sciences in material production, as expressed in the Industrial Revolution.

This scientific mastery of the production process as a metabolism with nature was a necessary prerequisite for the mastery of the producer in the production process, for the socio-economically essential "real subsumption of labor under capital". [1: 118] This applies even more strongly to the subsequent period, in which the natural sciences begin to underpin the production process in the sense [173] that the production process cannot take place at all without the *prior* scientific penetration of the production technology to be developed (this applies, for example, to the electrical industry as a whole and to many processes for the production of artificial materials, such as tar dyes, ammonia, etc.). This generally presupposes the *independent* development of scientific theories whose relevance to production technology often only becomes clear much later (e.g. Einstein's quantum theory of light is the basis for the quantum electronics used in laser technology).

The associated problems of the interaction between natural science, technology and the economy are the focus of attention today, in particular the problem of transfer, which refers to the implementation of scientific knowledge in material production. Its analysis, understood as an element of the investigation of the scientific-technical revolution, must always remain on the surface without knowledge of its (natural) scientific-technical foundations. This applies to an even greater extent to the production process of the future, from which man, on the one hand, will have been eliminated as the "main agent" [MGr 592 f.] ' and which, on the other hand, will be replaced by the

scientists themselves will be prepared directly and indirectly (e.g. steel production in a plasma furnace).

Literature:

1 *Marx, K.*, in: *Archiv Marksas i Engelsas*. Vol. II (VII), Moscow 1933, p. 4 ff. (Reprint: *Resultate des unmittelbaren Produktionsprozesses*. Frankfurt/M. 1969); 2. *Bernal, J. D.*: *The Social Function of Science*. London 1939; 3. *Ders.*: *Science in History*. London 1957 (German: Berlin 1969); 4. *Kuczynski, J.*: *Wissenschaft und Gesellschaft*. Berlin 1974; 5. *Ders.*: *Vier Revolutionen der Produktivkräfte*. Berlin 1974; 6. *Kuhn, Th. S.*: *The Structure of Scientific Revolutions*. Chicago 1964 (German: Frankfurt/M. 1972); 7. *Lilley, S.*, in: *Archives internationales d'histoire des sciences* 1949 (2), H. 4, p. 376 ff.; 8. *Needham, J.*: *Science and Civilization in China*. Vol. 1 ff., Cambridge 1954 ff.; 9 *Neugebauer, O.*: *The Exact Sciences in Antiquity*. Providence 1957; 10. *Wußing, H.*, in: *NTM - Schriftenreihe für Geschichte der Naturwissenschaften, Technik und Medizin* 1975 (12), H. 2, p. 99 ff.; 11. *Die gegenwärtige wissenschaftlich-technische Revolution*. Berlin 1972; 12. *Geschichte der Produktivkräfte in Deutschland*. Vol. 1-3, Berlin 1981 ff.; 13. *Histoire générale des sciences*. Vol. 1- 4, Paris 1957-1964 (English: New York 1963-1966); 14. *Lexikon der Geschichte der Naturwissenschaften*. Vol. 1 ff., Vienna 1959 ff.; 15. *Science at the Cross Roads* (1931). London 1971.

Hans Wußing/Thomas Kuczynski

1.4.9. Historical anthropology

Since the physical constitution and performance of humans are also modified by economic forms, it must be possible to draw indirect conclusions of an economic-historical nature from human remains and traces. First of all, conclusions can be drawn about social organization. [9] These inevitably lead to the economic forms. Even a specialized study of cannibalism among Pleistocene people in Indonesia [17] contains an economic-historical component. However, economic history can only be studied with optimal yield if human remains are viewed in an archaeological context. [12] [14] About overlaps,

[174], especially with 1.4.1. and 1.4.3. as well as 2.1.1., the following description is limited as far as possible to physical remains and traces left by the body. On the other hand, the exclusion from the archaeological context must not go so far as to neglect the finds: That would mean giving up the possibility of dating. Chronological classification is not possible on the basis of anatomical findings alone. For example, the discovery of skeletons of 10- to 14-year-old children in tunnels about 40 cm high in the Cretaceous near Hélin/Belgium [7] [8] directly provides economic-historical information: child labor in Neolithic flint mining! The anthropological findings (age determination, typological classification) only supplement and clarify the excavation findings.

Anthropologists mainly have access to the hard formations of the human body: skeletal remains from burials or cremations. In rarer cases, these are not burials, but fatal accidents or victims of war or ritual acts. A covering of soft tissue remains in so-called bog bodies or in salt mines; frozen human corpses in the ice can also be expected. Soft tissue was artificially preserved by mummification, whereby the technique ranges from simply placing the body in a suitable environment (hot desert sand, cold, dry high mountain caves) to the removal of the thoracic and abdominal cavities and the use of drugs. [5] Impressions of tactile ridge arrangements (papillary patterns) on the skin of the hand and foot are found on cave clay, on ceramic shards or on lumps of putty resin. So-called urn resin may also provide dental impressions. Bog bodies and mummies allow stomach examinations. Fossil excrements (coprolites) are also informative anthropological research objects. [3] [12] [22]

The depictions of humans that have existed since the Upper Palaeolithic (for the periodization of prehistory, see 2.1.1.) (carvings on bone or rock, carvings in ivory, bone, soapstone and the like, from the Neolithic upwards sculptures in ceramic material, finally metal casting and

stone sculpture) could find anthropological use. In each case it must be examined to what extent an artistic perception influences the representation.

Standardized shape description and measurement (morphometry) are used, as well as structural examinations (bone and tooth sections), X-ray photography and chemical and serological determinations (calcium-phosphorus quotient, amino acid spectrum, blood groups, etc.). They provide information on the course of growth, body shape, nutritional conditions, physical strain, ageing and wear and tear processes, population-specific genetic characteristics (gene pool), etc.

Larger collections [1] [18] [19] are available for the classification of previously known knowledge and for comparison. New results are published in specialist journals such as *Anthropologie* (Brno/CSSR), *L'Anthropologie* (Paris/France), *Anthropologischer Anzeiger* (Stuttgart/BRD), *Man* (London/UK), *Przegląd Antropologiczny* (Warsaw/Poland), *Voprosy Antropologii* (Moscow/USSR) and others.

The determination of age and sex is of particular importance, as the age structure, average lifespan, population growth and other paleodemographic data, which are also informative in terms of economic history, can be derived from the individual findings.

[1] [2] [18] [23] [28]

Non-specific changes to the skeleton, e.g. so-called Harris lines in the X-ray image of long bones [20], a lack of **bone** density due to calcium deficiency (starvation osteoporosis), bone deformations in the sense of rickets and other mineralization disorders, thickening of the skull bones as a reaction to anaemia, enamel changes to the teeth, etc., can be caused by the economic situation. Work processes may leave specific traces (reshaping) on the skeleton and teeth. [21] Diets also influence the masticatory apparatus; quartz dust and other minerals of great hardness that get into the flour from grinding stones can cause severe abrasion of the teeth. Refined cooking techniques, but especially desserts, promote tooth decay. [4] [9] Thus, the caries frequency (proportion of affected individuals) and the caries intensity (proportion of affected teeth) have virtually become a criterion of the socio-economic situation. [4] [10] [15] [24]

The paleopathological findings, collected and interpreted with the help of medical specialists and pathologists, complement the anthropological description. [11] [24] For example, the influence of the natural and social division of labor can be clearly seen in the vulnerability of the human skeleton. The female skeleton in modern mankind is generally more slender, the male skeleton more robust. This sexual dimorphism is still less pronounced in the Upper Palaeolithic and Epipalaeolithic (Mesolithic). The collection of all available information on traces of injuries (especially fractures) on male and female skeletons shows that (contrary to the theory of strength!) the female skeleton, which was already much more delicate in the Neolithic, is *less* affected - a consequence of the social division of labor, which puts men at greater risk from accidents and aggression, i.e. exerts a selection pressure in favor of a more robust supporting structure. [12] [16]

From the beginning of written records and statistical data, anthropological findings receded as a source of economic history. However, they still provide excellent illustrations of the physical effects of economic-historical processes. [6] [27] As early as 1869, Virchow drew attention to differences in growth between children in "factory districts" and agricultural regions. [26] Such findings led to the development of social anthropology. [25] The differences in size between rural and urban dwellers, between certain occupational groups and income classes documented since Pfitzner (1899) can be traced in historical depth: Aristocratic and patrician graves often yield greater body heights than the burials of an anonymous average population, which initially suggests the more favorable living conditions of the respective ruling class. [26] Here, however, anthropology tends to make use of economic-historical findings to explain certain facts (e.g. the regional distribution of certain characteristics), although on the other hand the historical-anthropological findings do not provide a clear explanation.

economic history (e.g. in the case of the mass occurrence of the so-called English disease, rickets).

Literature:

1 *Ascádi, G./Nemeskeri, J.*: History of Human Life Span and Mortality. Budapest 1970; 2. *Angel, L.*, in: *The Skeletal Biology of Earlier Human Populations*. London 1968, p. 263 ff.; 3. *Aspöck, H./Barth, F. E./Flamm, H./Pichler, O.*, in: *Mitteilungen der Anthropologischen Gesellschaft Wien*. Bd. 103, Vienna 1973, p. 41 ff.; 4. *Bach, A./Bach, H./Ehmer, W.*, in: *Ausgrabungen und Funde* 1975 (20), H. 5, p. 222 ff; 5. *Born, E.*, in: *Zentralblatt für allgemeine Pathologie und pathologische Anatomie* 1959 (99), H. 9/11, p. 490 ff; 6. *Clark, J. G. D.*: *Prehistoric Europe: The Economic Basis*. London 1952; 7 *Glason, A. T.*, in: *Helinium* 1971 (11), H. 1, p. 3 ff.; 8 *Cubuk, G. A.*: Mündlicher Hin-[176]weis auf Skelette in Hélin/Belgien in der Sammlung des Museums Brüssel; 9 *Debetz, G. F.*, in: *Social Life of Early Man*. Chicago 1961, p. 137 ff.; 10. *Dietz, Ch./May, V.*, in: *Ausgrabungen und Funde* 1975 (20), H. 5, p. 243 ff.; 11. *Floru, E./Nicolaescu-Plopşor, D.*, in: *Problèmes de Antropologie* 1961 (6), p. 43 ff.; 12. *Grimm, H.*: *Einführung in die Anthropologie*. Jena 1961; 13. *Ders.* in: *Biometrische Zeitschrift* 1973 (15), H. 6, p. 431 ff.; 14. *Ders.*: Informationsgewinn am Skelett. *Anthropology and medicine as auxiliary sciences of archaeology* (Ms.); 15. *Ders./Oehmisch, W.*, in: *Deutsche Zahn-, Mund- und Kieferheilkunde* 1956 (23), H. 7/8, p. 283 ff.; 16. *Ders./Mohr-Siedentopf, A.*, in: *Biologische Rundschau* 1970 (8), H. 3, p. 194 f.; 17. *Jacob, T.*, in: *Archæology and Physical Anthropology in Oceania* 1972 (7), p. 81 ff.; 18. *Kurth, G.*, in: *Handbuch der Biologie*. Bd. 9, Konstanz 1965, p. 461 ff.; 19. *Martin, R./Saller, K.*: *Lehrbuch der Anthropologie in systematischer Darstellung*. Bd. 1- 4, Stuttgart 1957-1966; 20. *McHenry, H.*, in: *The American Journal of Physical Anthropology* 1968 (29), H. 1, p. 1 ff.; 21. *Molnár, S.*, in: *Current Anthropology* 1972 (13), H. 5, p. 511 ff.; 22. *Morton, F.*: Die Auffindung eines vorgeschichtlichen Bos-brachyceros-Horns mit Bergmannsexkrementen im Hallstätter Salzbergwerk. Kali 1941; 23. *Nemeskeri, J./Harsányi, L.*, in: *Homo* 1959 (10), H. 4, p. 203 ff.; 24. *Rochlin, A. G.*: *Bolezni drevnich ljudej*. Moscow/Leningrad 1965; 25. *Straass, G.*: *Sozialanthropologie*. Jena 1976; 26. *Virchow, R.*, in: *Archiv für pathologische Anatomie und Physiologie und für klinische Medizin* 1869 (46), H. 4, p. 447 ff.; 27. *Paleoeconomy: Papers in Economic Prehistory*. Cambridge 1975; 28. *The Skeletal Biology of Earlier Human Populations*. London 1968.

Hans Grimm

1.4.10. Art history

The relationship between the history of economics and the history of the visual arts is - from the theoretical and methodological basis of dialectical and historical materialism - not the subject of a specialized discipline, but affects all aspects of art history as a science in different ways. As a subject of research, it can therefore only be dealt with in an interdisciplinary manner.

By fine arts we first understand sculpture, painting and graphics. The world, human existence and behavior are depicted and represented in them, in contrast to the processual arts (poetry, music, performing arts) in the medium of material, spatial, stationary objects in the form of sculptural corporeality or the image on the surface. The figurative, physical and visually appearing reality provides the urgent thematic objectivity of representation as well as the form in which human-social content is brought to light.

Fine art emerged with the appearance of *Homo sapiens* in the Upper Palaeolithic, as an element of an already relatively highly developed culture of hunters and gatherers, under the precondition of developed productive hunting methods of stable collectives capable of organized big game hunting, whereby the "raw needs" could be satisfied more safely and the first leisure time was made possible. Art emerged as a component of the syncretic activity complex - as body painting and decoration, small sculptures, especially female statuettes, tool shaping and decoration - and reached its first peak in the well-known cave paintings. It fulfilled a variety of socializing functions.

informational-communicative, magical, ritual and decorative functions [177] and documents an aesthetic behavior that is not yet independent, yet goes beyond the immediate purpose of use. Fine art became a specialized activity in line with the development of the division and productivity of labour, the separation of manual and mental labour in the civilization of class society; the homogeneity of producer and consumer was lost in the polarization of producer and audience, producing art became professional work, the work of art became an object of economic activity, the arts themselves began to function as ideological organs of antagonistic classes. This already shows us the intertwined nature of the visual arts in the social process of production and reproduction, in which their relative self-structure as artistic reflections has historically emerged.

From a systematic point of view, general and art-specific contexts merge here: on the one hand, visual art is production and falls under its general laws, on the other hand, it is intellectual production, as such an ideal representation, production of ideal images fixed as material products in their sign form for communicative purposes and thus the formation and objectification of social consciousness. The objective historical-social context of life encompasses not only producer and "consumer" (who functions primarily as "recipient", but also as owner, subject of representation, etc.). This context of life is at the same time the ultimate reason and objectivity of what is depicted and why, the social being that is brought to consciousness - admittedly in a highly mediated way.

The different aspects, which we distinguish methodically in the following, form a lively and contradictory unity in the art process itself. The *first* and most general aspect concerns the image relation, which is materially fixed in the work as the mediation of a mass-produced ideal communication process. The image implies a complex of relations of an informational, interpretative, evaluative nature, which - beyond all direct thematization - refers to the real subjectivity and objectivity of social individuals in their world.

Here we must ask about the economic-historical conditions, about the historical relationship between productive forces and relations of production, about its system and state of development as a concrete mode of production, which determines the reciprocal action of individuals, mediates their relationship to non-human nature, structures their way of life as a totality of material and ideal behavior and thus the objective-material reality in which they live and which they are. This social reality is depicted directly and indirectly, and at the same time it conveys the horizon of what can be depicted, of what is significant for the life process of individuals.

This is objectified artistically and consciously, of course, through the mediation of the totality of social practice, the ideological relationships, the historical, objectively conditioned mode of appearance in which the material being of society becomes conscious to its individuals, through the practically determined, historical, ideological-ideological patterns of selection and interpretation that determine the interest of representation. This interpreted "world" is depicted and represented according to the socially communicated image and sign code.

In this context, economic history as a scientific discipline is an indispensable basis - combined with a cultural history that explores the historical way of life in its entirety - for recognizing historical reality in terms of its objective objectivity, structure and laws of development, [178] for deciphering human subjectivity with the objective social conditions and their objectifications, and for deciphering the ideal relationships of individuals to the "world" and to themselves with the material foundations. It establishes a historical materialist semantics of images.

At the same time, the work of art is not only ultimately the product of the historical dialectic of productive forces and relations of production, but is itself - as a material-spiritual product - its specific ideal reproduction, objectified in form and its relationship to meaning. At the same time, this provides information about the real behavior, the subjective structure of the people who are the subjects of the economic process.

The whole of the ideological context of mediation also applies to the direct thematization of economic activity and determines its documentary value beyond the immediate activity information: Whether it is the depiction of ancient Egyptian everyday and working life in the wall paintings of burial chambers, the self-confident representation of miners on the panels of the Annaberg Miners' Altar, or the multifaceted reflection of the processes and results of the Industrial Revolution, which are compiled in Klingender's fundamental work.

The *second* aspect, closely related to the first, concerns the general social ideological function of art, its systemic function in accordance with the overall social structure, the class order and the specific audience structure. Here the social forces are examined that are addressed and expressed in the work, for the class society the specific class ideologies in their artistic manifestation. This thus concerns the ideal function of the visual arts in the whole of social activities and reciprocal actions, which, depending on the historical conditions and particularities, can be specified in terms of socialization, domination, representation, information and education functions, cult, decoration and entertainment functions, right up to specific political-publicistic combat functions. Economic history provides the general basis for this, insofar as it examines the concrete social units, class relations and contradictions, wealth production and distribution, and the basis and historical scope of ideal needs in the system of material activities and needs. This aspect is directly linked to the concrete purpose of the arts, their practised use, through which their class-ideological function is first realized, as the *third* aspect.

Both aspects come together when we ask about the role of visual art in the class struggle.

z. For example, as a space for the emancipation of bourgeois ideology between the Renaissance and the bourgeois revolution or as an expression and weapon of the revolutionary workers' movement in the forms that correspond to the material possibilities in each case. Proletariat was previously depicted objectively in the labor process or from the standpoint of protesting humanistic compassion, in the young Daumier as the popular figure of the young printer who stands up for freedom of the press, in spontaneous uprisings and outbursts (in Käthe Kollwitz) up to the first forms of direct agitational press and poster art.

A classic example in Egyptian art history of the ideological and political significance of artistic design is the art of the reform period of Amenophis IV (Akhenaten) and his immediate successors (14th century BCE). This harsh realism, soon suppressed by the political priestly backlash, protested against the social order represented by the traditional traditional ideal of beauty and stylization. The iconoclastic controversy, which flared up again and again from early Christian times up to the iconoclasts of the 16th century, is characteristic in another way. It articulated various economic and political antagonisms from the crisis of the Roman Empire to the early bourgeois revolution.

The *fourth* aspect concerns the economic-historical form and condition of art production in technical, work-organizational and social terms, the economy of distribution and consumption, and thus artistic communication itself as part of the economic process. This includes, for example, the spectrum of the social position of art producers - from personal dependencies of various kinds to the "free" market producer and entrepreneur or wage laborer - or the history of the different types of patrons and the relationships between producer and patron.

When, in the early Renaissance, the Italian upper bourgeoisie switched from public donations to private art collecting, parallel to self-representation in portraiture, the art trade and market were reborn from the Hellenistic period. However, the actual blossoming of capitalist collecting of art as a "stable value" investment sphere of capital unfolded in the 19th and 20th centuries, as did a market-determining art trade that treated works of art as objects of speculation.

At the same time, this expresses the independence of the cultural-aesthetic from the sacred and material value, thus a fundamental restructuring of social ideology, which leads to the *fifth* aspect. This summarizes the previous aspects in relation to the development of art and concerns the connection between economic-social, technical, ideological and artistic processes in the context of overall historical development; the emergence of specific art forms (e.g. prints), changes in style and changes in function (reduction of cult function in favour of secular use, of public functions in favour of private use, for example). This context also includes the process of the functional transformation of forms over long periods of time, insofar as certain practical forms became forms that only fulfilled aesthetic purposes, lost practical functions, gained new ones, but were continued as traditional forms because they carried certain meanings.

This set of questions also encompasses the divergence between periods of prosperity and decline in the relationship between the economy and production, as well as the problem of progress in the arts. Progress here is not to be measured in terms of science and technology; progressive ideas, functions, even techniques are not identical with "progress" in the specifically artistic mode of appropriation: What matters here is to determine in each case the relationship in which progress, stagnation or regression are measured.

A final, *sixth* aspect concerns the history of intellectual modes of appropriation, more specifically the relationship between the history of productive forces and their practice to be researched in economic history and the forms of intellectual appropriation, their historical differentiation based on the division of labour and their everyday, synthesized application. The focus here is on the function and significance of pictorial appropriation and pictorial-artistic objectification in relation to rational-scientific knowledge, thus the polarization of both modes of reflection, which in turn includes different relations of reality, which constantly finds new interrelationships and syntheses, as well as the socially typical forms of pictorial information and communication. With the development of scientific [180] knowledge of the world, the function, meaning and form of the aesthetically pictorial change, and with it the aesthetic need, which in turn is to be seen in connection with the "laborious doubling" of people and their viewing of themselves in the social world they have objectively produced. This sixth aspect finds its basis in the differentiation of social practice itself.

The question of the relationship between the lines of development of business and art is itself historical in character: its precondition is the separation of the two as relatively independent areas of social life, and thus the formation and social recognition of the fine arts as intellectual-ideological work. Its origin, however, is the experience of the disproportion, the contradiction between the two in bourgeois society.

The first occurred after ancient beginnings, which, however, could not develop due to the devaluation of physical labor, in the emerging bourgeois society since the Renaissance (thanks to the dissolution of feudal relations, division of labor, commodity production and market formation, emancipation of the arts from ecclesiastical and feudal state commissioning and ideological regulation, their role as a medium for the ideological emancipation of the bourgeoisie and representation of its aspirations and wealth, emancipation of artists from feudal guild formation, transformation of commissioned artistic works into commodities for an anonymous art market, production for an expanding market thanks to new graphic techniques, development of the art trade, private art collections and - later - art criticism). A concept of art per se encompassing all fine arts was only formed in the 18th century; it is to be analyzed methodologically analogous to the concept of work per se.

The theoretical question initially arose from the contradiction between the artistic ideal of the bourgeois emancipation movement and the feudal-absolutist order, but above all between this and the reality of post-revolutionary bourgeois society, the prose of capitalist practice. This contradiction, articulated in particular by Schiller and Hegel, to which the

The historical inevitability and perspective of this phenomenon, which the Romantics reacted to with flight and irony, could only be understood on the basis of Marx and Engels' materialist social theory. In response to the class struggles of developed capitalism on the one hand, and to the crisis of a merely immanent idealistic view of art on the other, bourgeois art studies developed the sociology of art, which later adapted certain basic insights of Marxism within the framework of bourgeois concepts of history. The materialist foundation of social and art studies encountered a fundamental change in the overall constellation of the fine arts, which was - quite obviously - initiated by the economy, by the Industrial Revolution, and which unfolded above all in the 20th century through the industrial productive forces and the new technical communication systems, in ideological terms through the development of the international workers' movement, the socialist revolutions and the integration of the arts into the cultural-artistic superstructure of socialist society in contrast to imperialism. Through the totality of these processes, representationalism, social-ideological function, conditions of production, distribution and reception as well as the techniques of production and reproduction, and thus the position of the visual arts in the overall ensemble of the arts in relation to new forms - photography, film - and to new mass media (the press was joined by film and television) were profoundly transformed. Its inclusion in industrial production as "industrial design", mass-produced capitalist pseudo-art, the use of industrial reproduction methods with a cheapening and democratizing effect changed its mode of existence just as much as the ideological and representational content of art changed as a result of social conditions, the class struggle and the change in form. Finally, in the development of modern architecture and building techniques, the prospects of new forms of interior and exterior design involving the visual arts are emerging. A conclusion of this development, in relation to the relationship between economy and art, is on the agenda of scientific research, especially since the scientific-technical revolution in the totality of its possible consequences has given this development further potential. Economic history does not "explain" art per se and can only indicate the external conditions, not the content of aesthetic evaluation and relationships. But without it, art can only be derived idealistically from itself, which is an illusion, the material and intellectual productive forces manifesting themselves in it, the production and social relations reflected and expressed by art, the social possibility of the functions fulfilled by the arts remain incomprehensible.

Literature:

(Selection - based on the works of the classics of Marxism-Leninism and Marxist general art history): 1. *Antal, F.*: Florentine Painting. London 1947, Berlin 1958, 2. *Arvatov, B.*: Art and Production. Moscow 1926, Munich 1972; 3. *Benjamin, W.*: Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit. Frankfurt/M. 1963; 4. *Bredenkamp, H.*: Die Kunst als Medium sozialer Konflikte. Frankfurt/M. 1975; 5. *Francastel, P.*: Peinture et société Lyon 1951; 6. *Gafert, K.*: Die soziale Frage in Literatur und Kunst des 19. Jahrhunderts. Kronenberg/Taunus 1973; 7. *Hauser, A.*: Sozialgeschichte der Kunst und Literatur. Munich 1953; 8 *Ders.*: Der Manierismus. Munich 1964; 9. *Hermann, R. D.*: Der Künstler in der modernen Gesellschaft. Frankfurt/M. 1971; 10. *Hirschfeld, H.*: Patrons. The role of the patron in art. Munich 1968; 11. *Honigsheim, P.*, in: Die Lehre von der Gesellschaft. Stuttgart 1958; 12. *Klingender, D.*: Kunst und industrielle Revolution. London 1947, Dresden 1974; 13. *Märten, L.*: Wesen und Veränderung der Formen und Künste. Weimar 1949; 14. *Mirimanov, W. B.*: Die Kunst der Urgesellschaft. Dresden/Moscow 1973; 15. *Martin, A. v.*: Sociology of the Renaissance. Stuttgart 1932; 16. *Silbermann, A.*: Empirische Kunstsoziologie. Stuttgart 1973; 17. *Wackernagel, M.*: Der Lebensraum des Künstlers in der florentinischen Renaissance. Leipzig 1938; 18. *Wittkower, R. u. Künstler - Außenseiter der Gesellschaft.* Stuttgart 1965; 19. *Zilsel, E.*: Die Entstehung des Geniebegriffs. Tübingen 1926; 20. *Lexikon der Bildenden Kunst.* Vol. 1 ff., Leipzig 1968 ff. (articles on fine art, industrial image, art, art history, arts and crafts, art trade, art sociology). *Wolfgang Heise*

1.4.11. Literary Studies

The subject of literary studies is the genesis, nature, distribution, exchange, reception, evaluation and effect of those products formed in the material of language that are called literary works, that can attain the status of works of art [182] as a result of their structural peculiarities and functional possibilities in accordance with social interests, needs and aesthetic norms, and that have a relatively independent history due to the internal laws of the literary process mediated by literary production, distribution and reception (see [13]). The totality of the relationships mediated by the works that people enter into represent the *literary relationships* [LW 10: 29 ff.], which, as part of the social whole, are mutually connected both with the material realm (social existence in the broad sense) and with the ideal realm (social consciousness in the broad sense) [15].

The relationship between literary studies and economic history first becomes tangible in the material area of literary relations. This includes the social and economic factors that are at work within literary production, distribution and reception itself, e.g. the separation of literary production and consumption, the remuneration of literary work, the possibilities of preserving and reproducing literary works (see [1]), the emergence and function of the literary market, the material conditions of literary consumption, the history of book production and the overall organization of literary life, etc. Research into these

"material side" of literary history represents "an indispensable prerequisite for a precise situating and for the accurate assessment of literary works". [6: 73] Decisive impulses for her investigation were provided by Krauss's research, which is also fundamental for the economic historian (see especially [6]), whose work also implicitly contains a fundamental critique of positivist literary sociology (see [2] [3] [5] as examples), for which the separation of the socio-economic from the literary-artistic aspect in the consideration of literature is characteristic. Recently, GDR German studies have also made attempts to research the "material side" of literary history (see the chapters on "Literature and Society" in [14]).

No less important for the economic historian is the reciprocal relationship between economic development and the ability of literary works, as components of the superstructure, to reflect this development on the one hand and, on the other, to have an effect on the basis through the functions they have in the formation and structuring of social consciousness. The methodological-theoretical preconditions for the clarification of these interactions have been created by historical and dialectical materialism. The mechanistic, economic and sociological interpretations of these connections already criticized by Engels (see [MEW 37: 435 ff., 462 ff., 488 ff.; 39: 96 ff., 205 ff.]) have been overcome by literary studies to the extent that it has succeeded in grasping more precisely the complicated mediations that exist between the specific nature of literary activities and the mode of production of material life, which only determines them in the last instance. This process cannot yet be regarded as complete, but in principle the vulgar materialist reduction of literature to "economic factors" and its interpretation as an "illustration" of social development have been overcome. A decisive factor in this was the view, which had been gradually gaining ground since the 1930s, that literature, in connection with "the artistic ... appropriation of this world" [MEW 13: 633], but at the same time, in the image they convey of it and the people in it, they also contain proposals for the meaning, ideological organization, knowledge, control and practical change of social and individual life. The usefulness of these proposals is decided in the processes of reception (see [15]).

[183] Of the potential of literary works, those that provide news of economic facts and processes are of particular relevance to the economic historian.

or have a documentary value for the representation of the relationships that exist between economic history and cultural history. Since the economic sphere plays a decisive role in the process of human development, it is not surprising that the literary-artistic way of appropriating the world has used its universal representational possibilities, which are granted to it by its special medium, language, to a special extent to shape precisely this sphere. As the work of Kuczynski in particular (see [7] [8]) shows, this fact gives literary history an outstanding value for the economic historian and gives literary studies a privileged place in academic collaboration (see [9]).

However, a list of works with economic-historical relevance would make little sense, because works of this kind can be found in literary history from the very beginning (we need only recall Hesiod's "Works and Days") practically without interruption. Even a work as otherworldly as Dante's "Divine Comedy" contains concrete references to technical production practices (e.g. Hell XXI, 7 ff.). With the rise of capitalism, economic and social problems and developments as well as their psychological effects became the preferred themes and motifs of realistic literary production. It was therefore quite logical that Marx and Engels, in their scholarly research into the basic laws of capitalism in particular, should repeatedly emphasize them: It was therefore quite logical that Marx and Engels repeatedly drew on literary sources in their scientific research into the basic laws of capitalism, and in some cases rated their cognitive value in this respect higher than that of professional historians, economists and statisticians (see [MEW 37: 44; 36: 75]); Lenin also expressly pointed out that the use of fictional sources was "a perfectly legitimate procedure for an economic researcher" [LW 2: 519]. Gorky's "Mother", Sholokhov's "The Silent Don", many of Brecht's plays and numerous other works of socialist realism show that this still applies in principle to the communist social formation. However, it would be tantamount to a deficiency in the scientific evaluation of literature if the literary interest of the economic historian were to remain limited to literary "great works of art" in the sense in which Lukács defined them in his Aesthetics (see [11]). Not only for the study of literary history, but also for the elucidation of economic-historical contexts, the consideration of works that do not exhibit a particular artistic qualification or that are denied such a qualification on the basis of valid aesthetic evaluation criteria is unavoidable. The same applies to works of such genres, which a concept of the subject of literary studies that is not reduced to epic, drama and poetry certainly includes: Memoirs, letters, diaries, reportages, essays, etc.

Particularly productive as a source of economic and cultural history is that area of the literary production of imperialist states in which a literary mass product [12] directly subject to the capitalist pursuit of profit is produced, whose clichés of content simultaneously convey ideological models in the service of the ruling class and norms for consumer behavior adapted to the capitalist economy [10]. On the other hand, a taboo on the economic sphere is characteristic of many works with artistic pretensions in capitalism, which impairs the interest in economic history in them. Nevertheless, a work such as Proust's "In Search of Lost Time" provides unique [184] insights into the nature of parasitic consumption precisely because it avoids any allusion to this sphere. Attempts in literary studies, on the other hand, to find homologies between novel structures and capitalist production conditions within the framework of the mechanisms of liberation [4], should only be of indirect interest to the economic historian.

The fact that literary works may contain references to the subject of economic history should not lead us to make their source value the yardstick of their evaluation. The insights that the economic historian can gain from them do not exhaust the artistic and literary-historical significance, the potential for impact and function even of those works that are particularly permeable to information from economic reality, such as the realistic novel of the 19th and 20th centuries. Apart from all the special functions that literary works can gain from an economic-historical perspective,

it should be considered proven that the "sense of art" that is formed in contact with artistic literature and the "ability to enjoy beauty" [MEW 13: 624] that also arises in such contacts represent important corrective factors for scientific bias and possibly increase the historian's awareness of the fact that the scientific use of language does not exclude the use of its aesthetic possibilities.

Literature:

1 *Benjamin, W.*, in: *Lesezeichen*. Leipzig 1970, p. 373 ff.; 2 *Escarpit, R.*: *Sociologie de la Littérature*. Paris 1973; 3. *Fügen, H. N.*: *Die Hauptrichtungen der Literatursoziologie und ihre Methoden*. Bonn 1964; 4. *Goldmann, L.*: *Pour une sociologie du roman*. Paris 1964; 5. *Hauser, A.*: *Sozialgeschichte der Kunst und Literatur*. Vol. 1-2, Munich 1953; 6. *Krauss, W.*: *Studien zur deutschen und französischen Aufklärung*. Berlin 1963; 7. *Kuczynski, J.*: *Gestalten und Werke*. Vol. 1-2, Berlin/Weimar 1969-1971; 8. *Ders.* in: *Neue deutsche Literatur 1971 (XIX)*, H. 2, p. 3. ff.; 9. *Ders./Heise, W.*: *Bild und Begriff*. Berlin/Weimar 1975; 10. *Löwenthal, L.*: *Literatur und Gesellschaft*. Neuwied/Berlin 1964; 11. *Lukács, G.*: *Die Eigenart des Ästhetischen*. Vol. 1-2, Neuwied/Berlin 1963; 12. *Zierrmann, K.*: *Romane vom Fließband*. Berlin 1969.

Manfred Naumann

1.4.12. Metrology

The first task of historical metrology is the collection and cataloging of measures used in the past and present and, wherever possible, their quantitative description by means of measures used today, e.g. the SI (système internationale; see [2]). Traditionally, it is primarily concerned with the measures and measuring instruments used in the measurement of length, area, volume and weight. It shares with numismatics the field of value and price measurement, insofar as their measurements in the form of coins were weight-dependent. Less important for the economic historian are her studies on measures of time and chronometric devices and on the development of technical and scientific measures and measuring instruments. Connections to the history of mathematics must be taken into account insofar as ancient number systems (e.g. hexagesimal system) and calculation rules (e.g. Babylonian root extraction) have produced measurement ratios that remain incomprehensible without knowledge of the history of mathematics. [12] [16]

[17] The same applies to (physical) weight relations between equal volumes of different substances (water-oil, wheat-barley, gross-net, etc. ratio) [1] [11].

The results of historical metrology are primarily of importance to all economic historians who also consider their research subject from a quantifying point of view and are dependent on measurement results that are not expressed in units of the SI (or one of its predecessors defined by the General Conference on Weights and Measures, e.g. CGS system). In particular, the economic historian must bear in mind that metrological units of the same name may well be unequal in content from place to place (e.g. in 1719 the Munich pound was 40% heavier than the Breslau pound), from time to time (the reduction of the Byzantine pound weight is particularly well known) and from object to object (e.g. the Hebrew cubit for measuring "flexible" objects was 20% longer than that for measuring "rigid" objects). For this reason, historical metrology publishes tables from time to time that summarize - more or less incompletely - the most commonly used metrological units (see [1] [8] [10] [13] and the tables bibliographed therein). In individual cases, the special literature should always be consulted, which is listed (still incompletely) in [14].

The founder of historical metrology as a science (its beginnings date back to antiquity) was Böckh. He formulated his claim as follows: "Do not say that the determination of the square of 80 pounds is an arbitrary one; in higher antiquity nothing is without reason, even if the reasons may often seem cricket-like to us." [4: 287 f.] This methodological starting point is particularly significant because, from the point of view of the contemporary observer, the units of measurement used in pre-capitalist social formations appear to represent a completely random variety. However, the standpoint of Böckh and his successors (Lepsius,

Hultsch, Nissen, Lehmann-Haupt, etc.) were subjected to a (in detail very, in essence by no means justified) scathing critique by Viedebant, in the wake of which a de-historicized, positivistic direction in historical metrology, limited to meticulous description, took hold.

However, if historical metrology were to be considered solely from the point of view of describing historical units of measurement as accurately as possible, it would be little more than an auxiliary discipline - very necessary (although not even mentioned in [15]), but probably not science in the true sense of the word. For example, the statement that the large weight in Königsberg in 1719 was 23.1% greater than the small weight is a correct result, but does not go beyond the empirical findings and is therefore, to paraphrase Hegel, *only a* result, a corpse that has left the tendency behind: The ratio 1 : 1.231 says nothing about the historical tendency, about the *inner* connection of the units of measurement. The same applies if one corrects the ratio only "insignificantly" (by 1.6%) and postulates the connection 4 : 5, because such "insignificantly corrected" relations can be constructed for practically all units of measurement without even the slightest hint of proof for their historical connection. However, it is evident that such a proof must be provided in order to go beyond mere description.

Only recently has historical-comparative metrology come to the fore again. Particularly noteworthy here are Bolotin's attempt to prove a historically coherent system of measurement for the ancient Near East and the ancient regions [5] [6], as well as the attempts to show the dependencies of the medieval European units of measurement both among themselves and from their ancient oriental or ancient predecessors [7] [9] [12].

[186] That this research must be supported by economic and especially trade history - "Nothing spreads from a common source more easily with trade than measure and weight" [4: 39] - is evident, as they could otherwise degenerate into mystical number games [3]. To make matters worse, various physical relations were unknown to contemporaries - e.g. that a liter of water at 20 °C is lighter than one at 4 °C, that its weight also depends on the geographical position, etc. - or could not be grasped with the measuring methods and instruments of the time, so that the empirically verifiable relations, insofar as they had not already been modified by the wear and tear of the measures themselves, could only ever represent approximations of what "according to the view should be quite so" [4: 288].

On the other hand, it is not only findings of measurements, but possibly also measurement ratios that draw our attention to direct or mediated economic relations between different regions, although caution must be exercised here. [9] Under no circumstances should the upswing in historical metrology that has been observed in recent years (see the protocols listed under [9] [12] [18]) go unnoticed by economic historians, especially since they could stimulate it.

Literature:

- 1 *Alberti, H.-J.* v.: Maß und Gewicht. Berlin 1957; 2. *Bender, D./Pippig, E.*: Einheiten, Maßsysteme, SI. Berlin 1975; 3. *Barriman, A. B.*: Historical Metrology. London 1953; 4. *Böckh, A.*: Metrologische Untersuchungen über Gewichte, Münzfüße und Maße des Altertums, in ihrem Zusammenhange. Berlin 1838; 5. *Bolotin, N. I.*, in: Klio 1967, p. 313 ff.; 6. *Ders.* in: Klio 1975, p. 249 ff.; 7. *Herkov, Z.*: Naie stare mjere i utesi. Zagreb 1973; 8. *Kisch, B.*: Scales and Weights. New Haven 1965; 9. *Kuczynski, Th.*, in: Technika történeti szemle 1978 (X), p. 33 ff.; 10. *Nissen, H.*, in: Hb. Kl. AW, vol. 1, p. 665 ff.; 11. *Oxé, A.*, in: Bonner Jahrbücher 1942, p. 91 ff.; 12. *Pfeiffer, E.*, in: Travaux du 2^{me} Conférence Internationale sur la Métrologie Historique. Zagreb 1974, p. 277 ff.; 13. *Schilbach, E.*: Byzantinische Metrologie. Munich 1970; 14. *Bibliographia Metrologiae Historicae*. Vol. 1-2, Ad- ditamenta, Zagreb 1973 ff.; 15. *international Encyclopedia of the Social Sciences*. New York 1968; 16 *Mathematical Cuneiform Texts*. New York 1945; 17. *Mathematical Cuneiform Texts*. Vol. 1-3, Berlin 1933-1938; 18. *Travaux du 1^{er} Congrès international de la Métrologie Historique*. Zagreb 1975.

Thomas Kuczynski

1.4.13. Military history

The significance of *military history* for economic history arises from the role that *wars* - their preparation, their execution and their consequences - have played in human history: "War is the continuation of the politics of one class or another; in every class society ... there have been wars" [LW 26: 149]. Economic history is not possible without taking into account the historical phenomenon of war, which is linked to *class society*. This results firstly from the fact that wars have always destroyed *productive forces*, people and material goods on a massive scale, decisively influenced economic development, and brought about changes in the economic structure and in the *relations of production*. This results, secondly, from the fact that war has always, but since the last hundred years especially, been dependent on the economy, [187] "that *force* is not a mere act of will, but requires very real preconditions for its exercise, namely tools, of which the more perfect overcomes the less perfect; that furthermore these tools must be produced, which at the same time means that the producer of more perfect tools of violence, vulgo weapons, defeats the producer of the imperfect ones, and that, in a word, the victory of violence rests on the production of *weapons*, and these again on production in general, that is - on the 'economic power', on the 'economic situation', on the material means at the disposal of violence" [MEW 20: 154]. Wars thus played a decisive role in determining the direction of economic development in the history of mankind. In order to take this connection into account, military history provides economic history with decisive foundations on the nature, character and concrete course of wars and their effects on the economy. For its part, economic history provides military history with a decisive basis on the economic preconditions, economic conditions, dependencies and class forces in every war. (On the connection between war and the economy, see also the relevant contributions in section 2).

As military history is not only concerned with the causes and course of wars, not all aspects of it are relevant to economic history. For economic history research, there are rather two aspects of military history: the *military-theoretical* and the *military-political* aspect.

The significance of the military-theoretical aspect for economic history is primarily expressed in the part of military history known as the history of the *art of war*.

[13] The connection between the *strategy* and tactics of military warfare and the state of the productive forces is obvious: The German war planning before the First World War serves as an example, when the impossibility of waging a long war against a larger number of opponents who possessed stronger economic powers than the German Reich prompted the German general staff to want to realize the world domination plans of the German big bourgeoisie with the help of an adventurous military strategy - the strategy of *blitzkrieg*.

[14] [20] There is also a close connection between strategy and tactics and production conditions: An example of this is the fact that during the Second World War it was not possible for the military to implement corresponding improvements in weapons technology, despite the technical advantages proven in battle, because this would have harmed the interests of leading monopolies. [19] Finally, there is a connection between the possibilities of implementing a strategy and tactics or mobilizing the masses for war and the consciousness of the masses: for example, the situation of the working class and its political consciousness during the First and Second World Wars had a decisive influence on the conduct of the war. [10: Vol. 4; Vol. 6] [22: Vol. 3] [23: Vol. 2]

Secondly, the significance of the military-theoretical aspect for economic-historical research is expressed in the part of military history that deals with the history of *military technology*. Above all, the development of the weapons themselves plays an important role here, but also the influence of the development of weapons technology on the natural sciences and technology and vice versa. At present, more than 90% of all general scientific and technical

developments can also be used in some way for the *military*. This has led to the phenomenon of modern war technology known as the "revolution in military affairs" and its effects on the image of war and warfare. However, the primary utilization of scientific and technical knowledge for military purposes has also led to a one-sided and distorted development of the productive forces in imperialism due to the possibility of gaining a technical and scientific lead over potential opponents in this way. So if *armament* always takes up a considerable part, currently about 50%, of the world's scientific and technological research and development capacity, the history of weapons technology, including its scientific and technological preparation, becomes an object that cannot be excluded from the consideration of economic history. This is all the more the case as this development, together with the emergence of large-scale industry, also gave rise to the specific industrial sector of the *armaments industry* (see contributions on military affairs and the economy in section 2), whose influence on economic and political development has been significant since the emergence of capitalism.

The military policy aspect of military history is important for economic history for two reasons. Firstly, military policy as a component of politics is generally as important as political history is for economic history anyway. The influence of economic conditions on military policy, especially military doctrine, as well as the influence of military policy decisions on economic processes, leads to a close connection between the two historical sub-disciplines.

Secondly, the history of military policy is important for economic history insofar as it allows a number of necessary connections to be made between the revolutionary - and military - struggle of the working class and its economic struggle. This includes historical research into the *aggressiveness of imperialism*, its peace-threatening social structure, the laws of this social order, whose mechanism geared towards the pursuit of profit always necessarily evokes wars or the threat of war, etc. This also includes economic-historical research into the progressive traditions of the working class, the economic conditions of the military struggles of the working people against the exploiters and oppressors, the devastating consequences of the wars for the working people and finally the constant impoverishment of the masses through the war policy of the ruling classes. [10]

Literature:

- 1 Abramov, V. K.: Man and Technology in Modern War. Berlin 1961; 2. Azovtsev, N. N.: The military questions in the works of V. I. Lenin. Berlin 1974; 3. Brühl, R.: Military history and war policy. Berlin 1973; 4. Förster, G.: Totaler Krieg und Blitzkrieg. Berlin 1967; 5. Frunse, M. W.: Selected Writings. Berlin 1961; 6. Groehler, O.: Geschichte des Luftkrieges 1910 bis 1970. Berlin 1975; 7. Hermann, C. H.: Deutsche Militärgeschichte. Frankfurt/M. 1968; 8. Hoffmann, H.: Die marxistisch-leninistische Lehre vom Krieg und von den Streitkräften. Berlin 1962; 9. Honecker, E.: Reliable protection of socialism. Berlin 1972; 10. Kuczynski, J.: Die Geschichte der Lage der Arbeiter unter dem Kapitalismus. 40 vols., Berlin 1960 to 1972, esp. vols. 4-7, 12, 14-16; 11. Liebknecht, K.: Gesammelte Reden und Schriften. Vol. 1, Berlin 1958; 12. Mehring, F.: Gesammelte Schriften. Vol. 8, Berlin 1967; 13. Rasin, J. A.: Geschichte der Kriegskunst. Vol. 1-2, Berlin 1959; 14. Ritter, G.: Der Schlieffenplan. Munich 1959; 15. Ders.: Staatskunst und Kriegshandwerk. Vol. 1-3, Munich 1964; 16. Schnitter, H.: Militärwesen und Militärpublizistik. Berlin 1967; 17. Sokolowski, W. D.: Militärstrategie. Berlin 1966; 18. Urlanis, B. Z.: Bilanz [189] der Kriege. Berlin 1965; 19. Welter, E.: Falsch und richtig planen. Heidelberg 1954; 20. Wünsche, W.: Strategie der Niederlage. Berlin 1961; 21. anatomy of war. Berlin 1969; 22. Germany in the First World War. Vol. 1-3, Berlin 1970 ff.; 23. Germany in the Second World War. Vol. 1 ff., Berlin 1976 ff.; 24. History of the Second World War. Vol. 1 ff., Berlin 1975 ff.; 25. Handbuch zur deutschen Militärgeschichte 1648-1939. Frankfurt/M. 1964 ff.; 26. Krieg, Armee, Militärwissenschaft. Berlin 1963; 27. Militärlexikon. Berlin 1973; 28. the Prussian-German General Staff 1640-1965. Berlin 1965. Alfred Schröter

1.4.14. Numismatics

While numismatics is generally understood in colloquial language to mean the collecting and organizing of coins, the tasks of numismatics as a science are far more comprehensive; collecting, determining and organizing are merely a prerequisite for the actual task.

The subject of numismatics is the means of payment, i.e. pre-coinage money (such as livestock, jewelry and money in kind) as well as primarily coins and finally also paper money. The various types of money orders (such as checks, bills of exchange, etc.) can be included. Numismatics is therefore the science of money in all its objective forms. It is also responsible for the scientific study of medals, which are not a means of payment capable of being exchanged, but are dedicated exclusively to the memory of persons or events. These objects, which are not part of monetary history, are included not only because of their similarity to coins, but also because of the smooth transition, as the following example from the time of the First World War shows: The imperial German government called for privately owned valid gold coins to be handed over to the state in exchange for paper money. In this transaction, the consignor received a commemorative medal (see [14: 105]). Numismatics also takes into account coin-like tokens used as tokens of value for goods or services - from the gate and bridge tokens that once secured a passageway to today's telephone and other vending machine tokens and many other tokens. Its most important object is money, according to Marx a commodity whose special characteristic is that it is the equivalent of all other commodities. Its classical form is the coin form, because "from the function of money as a means of circulation springs its coin form" [MEW 23: 138]. This is why numismatics is essentially concerned with coins, namely with the coined metal of all epochs and cultures that exhibit this means of payment. As Marx notes, "money as a coin acquires a local and political character, speaks different national languages and wears different national uniforms" [MEW 13: 87].

"Numismatics must cover all areas of the monetary system if it is to provide as complete a development of monetary history as possible. This includes, among other things, the consideration of the question of nominal value, weight, currency, coinage law, coinage technology and the organization of coinage, the circulation of money, the coinage rate and its deviations, currency disruption, the procurement of materials and the purchasing power of money" [1: 481].

Due to the great economic importance of money in all its forms, numismatics is closely linked to economic history: Money in its historical forms is the subject of both numismatics and economic history, so that both sciences overlap through this common subject - they also have different subjects in each case - but the methods are different. The numismatist starts from the concrete manifestations of money, whereas the economic historian, who relies on numismatic source research, looks at money primarily in terms of its function. Numismatics serves as an auxiliary science for economic history and vice versa. Numismatics also interacts in this way with other disciplines, e.g. philosophy (because means of payment bear inscriptions, i.e. linguistic evidence), art history (because coins are often small works of art) and, above all, political history, without knowledge of which the interpretation of coins would not be possible. Conversely, coins can provide data on political history through portraits of rulers, details of their name, the year of minting and the mint, which are attested by the coins alone.

Coins are first-rate monuments to economic history. The durability of the material means that they are sometimes still the only source of evidence for epochs and cultures. For example, the sub-kings of Persia are only known to us through their coinage (beginning around 250 BCE and ending with the first Sasanian coinage) [6: CLX ff., 195 ff.]. Coins are the most important evidence for those periods for which written sources are lacking, writes Grierson, but it is precisely under these circumstances that the interpretation of the coinage is most difficult. [4: 3]

For more than 2000 years, coins have not only been valid as equivalents on the domestic market, but also in long-distance trade, as their weight and fineness are usually guaranteed by the minting authority. Foreign money therefore also circulated in areas with their own coinage. Evidence can be provided for a wide variety of times and regions; for example, the foreign gold and silver coins circulating in Germany only ceased to be valid in 1878 [14: 94]. The Prague groschen, first minted after 1300, was particularly widespread. The finds of this coin type "unite, as it were, Germany, Austria, Bohemia, Poland, south-western Rus, Hungary and Moldavia" [15: 156]. In around 150 cities, this groschen was stamped with validation marks [8: 88]. Such countermarks, which document the acceptance of foreign coins in one's own currency area or a new valuation of older coinage, attract particular attention in numismatics because of their economic-historical significance. The larger currency unit minted by the Counts Schlick in Joachimsthal from 1518 for economic needs - called (Joachims-)Taler after its place of origin in Germany, Jefimok in Russia - was counterstamped in Russia before the regular minting of the rouble in 1655 (see generally [16]).

Coins reached far beyond their countries of origin and have survived there as important testimonies to the present day.

For centuries, coins have been found during excavations or by chance, which have survived as burial objects, as individual coins found among household goods or, above all, as hoarded treasures.

The treasure finds are particularly significant, not only for the history and culture of their area of origin, but also for economic relations and trade routes.

For this reason, a topography of coin finds is an urgent task that is common to numismatics and economic history, but is still in its infancy. The reasons for the burial can be manifold; we are often left to conjecture. Warlike events often caused the owner of the treasure, who was forced to flee, to bury it. However, coins may also have been kept safe as assets by burying them in relatively peaceful times. (see [3: 32 f]).

Although the container can provide clues, it is not always possible to determine when a treasure was buried. What is certain, however, is the terminus ante quem non of treasure formation, which is given by the most recent coin found. "In their distribution in the areas of the thoroughfares, the treasure finds reflect not only the political-military events in these areas, but also their economic conditions; the size of the treasure finds expresses the degree of economic development of these areas, the relative size of the surplus product produced in the individual areas" [5: 129]. Finds indicate trade relations, but not all proven trade relations are reflected in finds (see [4: 4]).

Coin finds also provide important information about the economic and political circumstances of the countries from which the coins originate. The coins of many states spread far beyond the political sphere of influence of the countries concerned. For example, we find Sasanian coins in China (see [7]) as well as in the Soviet Union - in the European (e.g. [2]) and Central Asian part (see [12]) - in Scandinavia (see [11: 58-104]) and as additions to other oriental material in the territory of the GDR (recently [17]). Arabic coins are just as widely dispersed. Conversely, however, only a few European or East Asian coins have appeared in Persia or the Arab world. This allows important conclusions to be drawn about the organization of international trade. The new work by Kropotkin [9] is an example of an attempt to draw conclusions about economic relations from coin finds.

The numismatist's tasks also include examining the fineness of the coins, as their quality is subject to various fluctuations, from which conclusions can be drawn about the economic and political conditions of the area of origin. Deterioration in quality indicates war, crises, increased need for money, etc. and led to the creation of coinage as early as the Carolingian period.

enrich. This measure, which was common in most of Europe, was made necessary by the clipping of coins, among other things. The fact that the renunciation of disrepute could be bought is proven by examples. Gresham's Law states that "the good coin is necessarily driven out of circulation by the continued circulation of bad coinage" [10: 258]. The extreme case of monetary deterioration, inflation, is one of the common research topics of numismatics and economic history, as is the question of the purchasing power of money in general, i.e. according to the relationship between wages and prices.

The specific numismatic tasks of find analysis also include the processing of so-called chopped silver finds, i.e. treasures of chopped silver jewelry, whole and chopped European and Oriental coins, which we find in areas without their own guaranteed silver purity. The chopping of jewelry clearly shows that neither the utility value nor the aesthetic value was important to the owner. "The hoards can therefore only have been created in order to hoard value, exchange value, i.e. they are to be understood as treasures in the sense of political economy" [5: 119]. The widespread use of chopped metal as money is indicated by the name rouble (from rubit' - to chop).

Of economic-historical interest is also the fact that certain coin types were imitated outside the territory of the sovereigns concerned in order to give their own money the prestige of the original. This practice can be observed at all times in the history of coinage. Silver Sasanian drachms in Central Asia, Samanid dirhams by the Volga Bulgars and Khazars, Roman gold coins in the Germanic empires of the Migration Period as well as the French turnose and the Florentine florin and many other coins were imitated.

Even in more recent and modern times, when an immense amount and variety of written sources are available for economic history, money in its concrete form, which is widely researched by numismatics, retains its importance as a source for economic history. Examples worth mentioning are the paper money of the inflationary period or the "internal currency" of the German concentration camps (more recently [13]).

Numismatics can hope that the results of research into economic history will also help it to solve some of the many puzzles it still faces when attempting to interpret the surviving numismatic material.

Literature:

- 1 Böning, A., in: Introduction to the Study of History. Berlin 1966, p. 479 ff.; 2. Charitonov, D. E., in: Sbornik na Zapadnom Urale 1964 (4), p. 170 ff.; 3. Gebhart, H.: Numismatik und Geldgeschichte. Heidelberg 1949; 4. Grierson, Ph.: Numismatics. London/Oxford/New York 1975; 5. Herrmann, J.: Siedlung, Wirtschaft und gesellschaftliche Verhältnisse der slawischen Stämme zwischen Oder/Neiße und Elbe. Berlin 1968; 6. Hill, G. F.: A Catalogue of the Greek Coins of Arabia, Mesopotamia and Persia. London 1922; 7. Hsia Nai in: La Chine en construction 1974 (12), H. 9, p. 46 ff;
- 8 Kargel, A.: Münzen erzählen, Bielefeld 1971; 9 Kropotkin, V. V., in: Materialy i issledovaniya po Archeologii SSSR 1970 (176), p. 146 ff; 10 Luschin v. Ebengreuth, A.: Allgemeine Münzkunde und Geldgeschichte des Mittelalters und der neueren Zeit. Munich/Berlin 1926; 11. Markov, A.: Topografija kladov vostočnych monet (Sasanidskich i Kufičeskich). St. Petersburg 1910; 12. Masson, M. E., in: Istorija Iranskogo gosudarstva. Moscow 1971, p. 219 ff.; 13. Pick, A./Siemens, C.: Das Lager- geld der Konzentrations- und D. P.-Lager 1933-1945. Munich 1976; 14. Rittmann, H.: Auf Heller und Pfennig. Munich 1976; 15. Soboleva, N. A., in: Numismatický Sborník 1973-1974 (13), p. 153 ff.; 16. Spasskij, J. G.: Talery v ruskom deneznom obraščeenii 1654-1659 godov. Leningrad 1960;
- 17 Warnke, D., in: Numismatische Beiträge (Arbeitsmaterial für die Fachgruppen Numismatik des Kulturbundes der DDR), 1975, H. 1, p. 34 ff.

Hermann Simon

1.4.15. Jurisprudence

As a system of research results and methods, jurisprudence examines the objective regularities of the emergence and structure, the (evolutionary and revolutionary) change of the state and law as well as their influence on social development. The state, the organ of political power [193] of the respective ruling social class, and the law, the state-guaranteed system of social rules of conduct (entitlements and obligations), on the one hand reflect the economic structure of society, whose product they ultimately are, but on the other hand they are themselves "economic potency" [MEW 23: 779]. Since jurisprudence deals with interrelations between the political superstructure and the material structure of society in the past and present, its field of research overlaps with that of history and economics, especially with the science of economic history. In this respect, the findings and methods of lawyers and economic historians are of mutual importance, particularly with regard to a) the history of the origins and changes and b) the history of the impact of the state and law. The research findings of economic historians on a) are of particular interest to legal scholars, while the research findings of legal scholars on b) are of interest to economic historians - or at least they should be.

For on the one hand, the existence and development of the state apparatus and the will of the state, i.e. the constitutions, laws, decrees, court rulings, etc., can ultimately be explained by the economic living conditions of the respective society, since they by and large reflect the average interests of the social class dominating production [MEW 21: 300 f.], and on the other hand, the retroactive function of state power and the legal order in the entire class society is objectively necessary because it is indispensable for the ruling class. As a result of their relative independence, i.e. their (limited) independent movement, the retroactive effect of the state and law on the economic basis is also capable, within certain limits, of modifying the latter, i.e. of accelerating or slowing down its development, in the latter case thus doing great harm to economic development and generating a waste of energy on a mass scale. [MEW 37: 490 f.]

The state and law emerged during the transition from primitive society to class society. The original common ownership of the means of production corresponded to norms in the form of obligatory customs such as the rules for the distribution of spoils, the observance of which was in the equal interest of all and was therefore enforced or avenged by the joint action of all in the event of transgression. With the division of society into classes, social norms of a completely different character emerge [MEW 21: 165]: As legal norms, they essentially reflect only the interests of the part of society owning the means of production; they apply on a certain territory and no longer only to the members of a general organization held together by ties of blood; their observance is enforced by the use of state violence if necessary; the initially customary rules are increasingly replaced by written law, in that conflict-deciding judgments are recorded by judicial bodies and considered binding for similar cases or in that general rules are declared binding by special legislative state bodies (legislative and judicial monopoly of the state). According to the different modes of production and social formations, a distinction is made between different types of state and legal systems, which are developed in different forms of state and law (the bourgeois type of state, e.g. in the form of the constitutional monarchy and the parliamentary republic; bourgeois law, e.g. in the form of codified law and case law). The legal system of a state is divided into different branches of law, i.e. subclasses of legal norms and their implementation mechanisms, e.g. constitutional law, administrative law, commercial law, labour law, agricultural law, [194] civil law, patent law, family law, criminal law, procedural law, private international law, public international law, etc., according to the distinguishable areas of regulation.

The social and economic regulatory and safeguarding function of the law serves the conditions of existence of the respective ruling social class, in whose interest it is to ensure the constant and stable existence of the ruling class.

reproduction of society and, therefore, the daily recurring acts of production, distribution and exchange of products should be governed by common rules [MEW 18: 276]: Rule and order is an indispensable moment of every mode of production which is to assume social solidity and independence of mere chance or arbitrariness [MEW 25: 801].

Of particular importance here is, of course, the *regulation of property*. The law is used to forcibly change the traditional ownership structure (Jacobin Law of July 17, 1793 on the abolition of all remaining feudal rights without compensation; Russian Revolutionary Decree of October 26, 1917 on the expropriation of landowners without compensation [LW 26: 24]). October 1917 on the expropriation of landowners without compensation [LW 26: 249]) or legitimized existing property - in persons, land, movable property and inventions (patents) (French Civil Code, 1804, Art. 544: Property is the right to use a thing in the most unrestricted way ..., and USSR Constitution, 1977, Art. 10: Socialist ownership of the means of production is the basis of the economic system). Criminal law is used to punish property violations (Sachsenspiegel, ca. 1225, II, 13: the thief shall be hanged; the Carolina, 1532, defines 18 different property crimes). Inheritance law regulates the succession of property in the event of death (e.g. Koran, Sura 4, verse 8). Capitalist property regulation in particular inadequately reflects the economic structure of society by consistently failing to distinguish between personal and private property (FRG Basic Law, 1949, Art. 14; BGB, 1900, § 903; StGB, 1871, § 242).

The respective *production structure* is also regulated by law, especially with regard to the position of the economic units in relation to each other. Under capitalism, for example, trade regulations govern the general requirements for opening a business, and commercial codes lay down the general management structure for stock corporations, general partnerships and limited liability companies; antitrust laws enable the state to exert flexible influence on monopoly agreements that restrict competition. Under socialism, special laws and ordinances regulate the founding procedure, the management structure and the tasks of national companies and agricultural production cooperatives.

The *employment relationship* is also legally regulated with different quality and quantity. In ancient Rome, slaves were treated as objects, like fields and bulls; they were not the subject of a legal relationship, but an object; in contrast, the labor relationship between the poor and the rich free man was based on a contract (Gaius, Institutions, 161, 1/52 and 111/142). In feudalism, the fragmented court rights contained stipulations on the peasants' duty to perform feudal service, to deliver goods in kind or to pay interest (still covered by: Allgemeines Land- recht, Preußen, 1794, II, 7, 3). Under capitalism, the employment relationship is regulated in the civil codes as a wage contract (e.g. Austrian General Civil Code, 1812, § 1151); in more recent times, works constitution laws lay down the extremely limited co-determination rights of workers (e.g. Works Councils Act, 1920, § 66 ff.; liquidated by the fascist Law on the Order of National Labor, 1934, § 2: The leader of the store decides to the followers in all store matters); the Labor-Management Act, USA, 1959, § 504, prohibited communists from becoming union employees. Under socialism (e.g. [195] GDR, Labor Code, 1977, ch. 2), the rights of workers to participate in the management of their enterprises are laid down by law.

And finally, *circulation relationships* also take place on a legal basis. Roman law (Institutions, 533, 3/13 ff.) already provided a precise elaboration of all the essential legal relationships of simple owners of goods - purchase, rent, loan, lease, pledge, contract of service, contract for work and partnership - so that its basic ideas of regulation could be adopted in most European countries: The *commodity form* of labor products corresponds to the *legal form* of exchange relations. [MEW 23: 99] Under socialism, a distinction is made between the cooperative regulation of inter-company relations through the economic contract (e.g. GDR, Contract Law, 1965, Part 2) and the civil law contracts of citizens for the organization of material and cultural life - housing rent, purchase, services, loans, insurance, etc. (e.g. GDR, Civil Code, 1976, Part 3).

The influence of the ruling class on economic development with the help of the state and the law is partly indirect, partly direct. For example, the five-year plan laws and the laws on the national economic plan and the state budget plan for the respective plan year in the socialist countries contain direct general economic objectives, but also priority tasks and percentage growth ratios for the economic sectors and particularly important products. The monopoly capitalist state attempts to control economic structural changes indirectly through subsidy, investment, tax collection and customs regulations.

Law is used to initiate inter-state economic integration on a state-monopoly basis (EEC Treaty, 1957), but also to regulate socialist economic integration for the planned development of national economies (CMEA Statute, 1976; CMEA General Conditions of Supply, 1968).

In addition to the *regulatory* function, which is of interest to economic historians, one can also speak of an *indicative* function of law. Constitutions, laws, court rulings, economic and foreign trade contracts, general terms and conditions, court speeches, economic crime statistics, criminal records, land registers, registers of associations, patent grants, new business agreements, tax assessments, petitions, servants' regulations, company collective agreements and employment contracts, and even marriage contracts and wills represent a means for the development and evaluation of past economic conditions that should not be underestimated, and sometimes even the only surviving means.

It should not be overlooked that the important works of world political-legal literature not only allow us to draw conclusions about the economic structure of the period in which they were written, but also that they often make a significant contribution to economic thinking: Platon (Staat, 369 St and 462 St) contains remarkable remarks on the constructive role of the division of labor and the destructive role of private property (in relation to the polis), Hobbes' main work on the theory of the state contains the insight that the worker does not sell his labor but his labor power (Leviathan, chap. 10), and Hegel's "Fundamentals of the Philosophy of Right" (§ 246) brings the ingenious realization that bourgeois society is driven beyond itself by the immanent opposition of poverty and wealth.

Since there is currently hardly any evidence of planned cooperation between economic and legal scholars, it would be a step forward to take note of the results of each other's research. [196]

Literature:

1. *Conrad, H.*: Deutsche Rechtsgeschichte. Vol. 1-2, Karlsruhe 1954-1966; 2. *Costa, E.*: Bibliographie der deutschen Rechtsgeschichte (1858). Wiesbaden 1969; 3. *Creifelds, C.*: Rechtswörterbuch. Munich 1973; 4. *David, R.*: Einführung in die großen Rechtssysteme der Gegenwart. Munich 1966; 5. *Erler, A./Kaufmann, E.*: Handwörterbuch zur deutschen Rechtsgeschichte. Vol. 1 ff., Berlin (West) 1971 ff.; 6. *Fikentscher, W.*: Methoden des Rechts in vergleichender Darstellung. Vol. 1-4, Tübingen 1975-1977; 7. *Friedmann, L. M.*: A History of American Law. New York 1973; 8. *Gifis, St. H.*: Law Dictionary. Woodberg 1975; 9. *Huber, E.-R.*: Deutsche Verfassungsgeschichte seit 1789. vol. 1-4, Stuttgart 1957-1969; 10. *Javič, L. S.*: Obščaja teorija prava. Leningrad 1976; 11. *Koschaker, P.*: Europe and Roman law. Munich 1966; 12. *Lukics, R.*: Theorie de l'état et du droit. Paris 1974; 13. *Seagle, W.*: Weltgeschichte des Rechts. Munich 1967; 14. *Sellnow, W.*: Gesellschaft - Staat - Recht. Berlin 1963; 15. *Szabó, I.*: Les Fondements de la theorie du droit. Budapest 1973; 16. *Wesenberg, G.*: Neuere deutsche Privatrechtsgeschichte. Lahr 1976; 17. *Wieacker, F.*: Privatrechtsgeschichte der Neuzeit. Göttingen 1967; 18. *Beiträge zur Entstehung des Staates*. Berlin 1973; 19. *Bibliography of bibliographies in political science, government and public policy*. Oxford 1967; 20. *Deutsches Rechtswörterbuch*. Vol. 1 ff., Weimar 1914 ff.; 21. *Evangelisches Staatslexikon*. Stuttgart 1966; 22. *Handlexikon zur Politikwissenschaft*. Munich 1970; 23. *Handlexikon zur Rechtswissenschaft*. Munich 1972; 24. *International Encyclopedia of Comparative Law*. Vol. 1-17, Tübingen/The Hague/Paris 1972 ff.; 25. *Karlsruher Juristische Bibliographie*. Vol. 1 ff., Munich 1965 ff.; 26. *Kleines politisches Wörterbuch*. Berlin 1973; 27. *Marxistische Beiträge zur Rechtsgeschichte*. Berlin

1968; 28. *Marksistko-leninskoe učenie o gosudarstve i prave*. Moscow 1977; 29. *Marxist-Leninist general theory of the state and law*. Vol. 1-4, Berlin 1974-1976; 30. *Marxist-Leninist Theory of the State and Law*. Berlin 1975; 31. *Staatslexikon*. Vol. 1-8, Freiburg 1957-1963; 32 *Teorija gosudarstva i prava: Bibliografija 1917-1968*. Moscow 1969; 33 *Wirtschafts- und Aussenwirtschaftsrecht für Ökonomen*. Berlin 1977; 34. *dictionary of the socialist state*. Berlin 1974; 35. *Zeitschrift der Savigny-Stiftung für Rechtsgeschichte*. Vol. 1 ff., Weimar 1880 ff.

Hermann Klenner

1.4.16. Sociology

The subject of sociology is the laws, connections, conditions and driving forces of social processes and behavior. [17] Marxist-Leninist sociology has a hierarchical structure both in terms of its subject areas and its theoretical statements: it is a theory of society, a theory of the structure and development of important social sub-areas and a theory of the behavior of concrete social groups under concrete social conditions. [14] [17] Marxist-Leninist sociology emerged as a general social theory with historical materialism; in the unity of theoretical and empirical research, the upswing of sociology in the GDR occurred in the 1960s, when the objective conditions and requirements of socialist construction made concrete empirical analyses of social development processes and behavior patterns necessary. Research on social structure [4] [13], on personality [1], on the connection between working conditions and behavior in and towards the work process [14], on problems of education [7] and the development of the socialist way of life were decisive for the profile of sociology in the GDR.

Sociology is not possible without using insights from economic history. One example should stand for many possible ones: The analysis of the development of the social structure, especially the convergence of classes and strata and the reduction of other significant social differences, is one of the central topics of sociological research in all countries of the socialist community. Since the mid-1970s, a new stage of cooperation between sociologists in socialist countries has emerged: there has been a transition to joint research on the convergence of the working class and the intelligentsia and on the development of the relationship between physical and mental labor; the aim of this research is to work out general tendencies and regularities of the convergence process and at the same time to present the specific problems of each country in an international comparison. The evaluation of common and specific findings, i.e. their transfer into theoretically generalized research results, requires that they be traced back to material foundations. The fact that the social structure of the working class and intelligentsia, the processes of their development and structural change present themselves in this way and not otherwise, has its reasons in the historical development of each country, in the totality of which the economic-historical development is of outstanding importance above all because here the ultimately determining role of the productive forces and relations of production is directly and historically concrete. An understanding of development processes in the respective country and the level of development achieved there, and above all their international comparison, is impossible without detailed knowledge of the general historical and specific economic-historical conditions. The current level of development of the working class and the intelligentsia in the socialist countries can only be correctly assessed and compared with one another if the material historical preconditions ultimately rooted in the state of the productive forces are taken as a starting point and if the processes of change in the social structure are constantly explained as a correlate of the change in objective conditions. Since questions of this kind will become increasingly important in the further shaping of the developed socialist society and the progressive cooperation of the socialist countries, the systematic appropriation of the results - in the ideal of international comparative economic-historical research by sociology - is of paramount importance; with it certainly also the more direct cooperation of economic historians and sociologists.

The importance of sociology for economic history results from the subject matter of sociology, the structure of its theoretical system and the specific nature of its way of thinking and working. Firstly, sociology is general social theory [3] [5] [11] and in this sense the theory and methodology of every analysis of social contexts and development processes. This overarching function of general social theory is realized above all through the connection between social and economic history. Secondly, when explaining social processes, sociology starts from their objective material foundations and examines how these processes are carried out by social groups whose interests, goals and needs exert a certain influence on the concrete way in which social developments take place. An important characteristic of sociology is the study of the interrelationship of objective and subjective factors of the historical process, of the relationship between [198] the individual and society, of material and non-material influencing factors and conditions. Sociology is not, as many bourgeois conceptions assume, reducible to "behavioral analysis"; but at the same time, sociology is inconceivable without the analysis of the behavior of social groups. A distinction must be made between two questions. The first explains social behaviour from social conditions by tracing the interests, goals and needs of social groups and the behaviour aimed at their realization back to the social conditions under which social groups exist and act. This is not only about the fundamental behavior of classes towards each other and its derivation from the socio-economic conditions of existence, but just as much about the concrete behavior of groups and divisions of classes, which can be explained both from the general conditions of existence of the class and from the concrete modifications of these conditions and the resulting modifications of the interests. The second question concerns the role of behavior in the reproduction of social relations; it concerns the problem of the concrete behaviors of social groups through which social relations are reproduced, evolutionarily or revolutionarily changed. For every social science that deals with the dialectics of social relations and social behavior within the framework of the specificity of its subject, the sociological way of thinking is thus a moment of its theory and methodology. [2] [3] [5] [11] Thirdly, sociology is itself a historical discipline. To the extent that it understands the processes of the development of social structures, the development of personality, the way of life, etc. in their historical development, it not only refers to the results of historical research, but also conducts it itself. Located at the interface between economic and social history, sociological research is becoming increasingly urgent, which, building on existing approaches, focuses on the laws, connections, conditions and driving forces of social processes and behavior as a historical process.

[9] [10] [13]

Like every social science, sociology has a class character. While Marxist-Leninist sociology has developed since its foundation by Marx and Engels as a moment of scientific foundation for the strategy and tactics of the working class and its party, bourgeois sociology [15] is characterized by a contradictory double function. On the one hand, bourgeois sociology - in fact also since its foundation as sociology in the narrower sense - is conceived as part of the bourgeoisie's attempts to counter the emerging workers' movement, Marxism and, in the present, socialist society and the struggle of the working class in capitalist society with a theoretical system tailored to the needs of the apologetics of the capitalist order. Within this strategy, bourgeois sociology has pursued and continues to pursue different tactics: First and foremost, it attempted to counter Marxism-Leninism with equivalent theoretical systems [12]; secondly, not least because of the failure of the former, to switch to theoretical concepts of a different nature (such as that of "middle range" theories); and thirdly, to escape the hopeless theoretical confrontation by reducing sociology to positivist empirical social research [6] [16]. On the other hand, bourgeois sociology has the task of contributing to a better mastery of social power mechanisms by the bourgeoisie.

While the apologetic function prevents bourgeois sociology from uncovering the real regularities of social development, its second function forces it to at least partial insights. Empirical research undertaken in pursuit of this goal is, as a rule, absolutely useless as far as the theoretical generalizations that emerge from it are concerned. They can, however, be of considerable interest as far as the immediate empirical data and the methods and techniques of their collection and processing are concerned [15] - provided that the conceptual approaches are critically examined and the empirical data are interpreted in a Marxist-Leninist manner. Occasionally - and this is by no means a determining factor, but it should by no means be neglected - the conflict between apologetic and epistemological functions leads individual bourgeois sociologists to transcend the boundaries of bourgeois sociology and conduct sociological analyses with remarkable depth and insight. [8] Furthermore, within the fundamental field of tension between Marxist-Leninist and bourgeois sociology, there are petty-bourgeois conceptions in which the criticism of the capitalist system and the inability to recognize socialism as a real alternative combine to form a strange contradiction.

Literature:

1 *Adler, F./Jetzschmann, H./Kretzschmar, A.*: Arbeiterklasse und Persönlichkeit im Sozialismus. Berlin 1977; 2. *Bollhagen, P.*: Sociology and History. Berlin 1966; 3. *Drobishewa, L. M.*: Sociology and History. Berlin 1974; 4. *Grundmann, S./Lötsch, M./Weidig, R.*: Zur Entwicklung der Arbeiterklasse und ihrer Struktur in der DDR. Berlin 1976; 5. *Hahn, E.*: Historical Materialism and Marxist Sociology. Berlin 1968; 6. *Kon, I. S.*: Der Positivismus in der Soziologie. Berlin 1968; 7. *Meier, A.*: Soziologie des Bildungswesens. Berlin 1974; 8. *Mills, C. W.*: The American Elite. Hamburg 1962; 9. *Senjowski, S. L./Telpuchowski, W. B.*: The working class of the USSR (1938-1965). Berlin 1973; 10. *Škaratan, O. I.*: Problemy social'noj struktury rabočego klassa SSSR. Moscow 1970; 11. *Chesnokov, D. I.*: Historical materialism as the sociology of Marxism-Leninism. Berlin 1975; 12. *Weber, M.*: Economy and Society. Tübingen 1976; 13. *cooperative farmers - yesterday - today - tomorrow*. Berlin 1977; 14. *Grundlagen der marxistisch-leninistischen Soziologie*. Berlin 1977; 15. *Handbuch der empirischen Sozialforschung*. Vol. 1-11, Stuttgart 1973-1977; 16. *Die Krise in der Soziologie der BRD*. Berlin 1975; 17. *Dictionary of Marxist-Leninist Sociology*. Berlin 1977.

Manfred Lötsch

1.4.17. Linguistics

The development of language is inextricably linked to the development of the language carriers themselves. Language is a social phenomenon that develops with people and through them. It can be assumed that there is a close connection between the character of a social formation and the communication conditions typical of it, i.e. that certain socio-economic conditions necessarily give rise to certain communicative needs which form the respective type of social communication. Particularly important factors here are the state of the productive forces, the degree of the social division of labor, the class structure of a society. [21: vol. 2, 634 ff.] Starting from these premises, it is also possible to demonstrate certain social developments and changes in language, especially for periods from which we lack other evidence. **It** must be pointed out, however, that philological facts alone are not sufficient to prove an economic-historical thesis, since the relationships between language and society are subject to a variety of mediations (see [21: vol. 1, 126 ff.]). However, both sciences can provide each other with valuable stimuli.

The definition of language as a social phenomenon shows that the share of individual classes and strata in overall social communication varies greatly. In the last instance, it depends on their share of social wealth and their position in the system of the social division of labor (see the discussion of bourgeois communication).

scientists about the "language barriers" [8] [20]). This can mean that entire classes or strata can be excluded from certain socially relevant areas of communication. [4] [21] A large part of the world's population, for example, is still not involved in written communication due to social disadvantages in the education system.

Certain conclusions about social structures can also be drawn from the structure of the forms of existence of the language, i.e. from the relationship between dialects, colloquial language and literary language (for the distinction see [19: 412 ff.]). The feudal economic structure of ancient Russia, in which each feudal estate and monastery formed a relatively self-contained community with the neighboring villages, can still be traced today in terms of dialect geography. Thus, in the southern part of the central Black Earth region, where manor ownership was particularly strong, many small local dialects are still preserved, while in the northern part, where in many places there was no manor ownership at all, the dialects cover larger areas. [10: 18 f.] The extent to which intensive economic relations can influence the structure of forms of existence can be seen in the development of regional varieties of the literary language in certain areas. The Middle Low German written language had, for example

B. in the 14th/15th century in the entire economic area of the Hanseatic cities, but lost this very quickly with the decline of the Hanseatic League. [15: 102 f.] It is a sign of emerging capitalism that it strives to overcome the territorial fragmentation to be found in all countries and to produce a uniform national language, as this is indispensable for a uniform internal market and for the organization of a uniform state. [LW 20: 398 f.].

Etymological research results can also be of benefit to economic historians. For example, the proof that the root of the Russian word "ruble" is the Old Slavic "rubit" (to chop), i.e. that a "ruble" was the chopped-off part of a "grivna" (silver ingot), indicates that money in this area was primarily available in the form of chopped silver. [17] The situation was different in Roman times: here the root of "pecunia" (money, wealth) can be found in "pecus" (cattle). This indicates that the forerunner of coinage was cattle money, and - as the etymological analysis also makes clear - not so much cattle as in the ancient Near East, but "pecora" (sheep). [18] [6: 238 f.] The history of the word "thaler" is also interesting in terms of economic history. It refers to a coin that has been minted since 1518 in the small mining town of Joachimsthal in the Erzgebirge - hence the name. The fact that this coin was apparently already so widespread in 1540 that "Taler" is mentioned in a dictionary [1] and also passed into other languages as a loan word speaks for the importance of silver mining in the Erzgebirge at this time. This is an indication of already existing intensive trade relations (the American "dollar" also goes back to the German "Taler"). [9] [13: 178 f.]

[201] The history of borrowings can provide equally interesting economic-historical clues. After all, borrowings were always particularly intensive when the economic and cultural relationships between the language communities were particularly close. The words were usually borrowed from the language from whose linguistic community the corresponding objects were adopted. The vocabulary in particular offers rich material (see the word history of the individual languages, e.g. [7] [12]). The Germanic tribes, for example, who adopted the brick construction method for building houses from the Romans along with many other things, also borrowed the corresponding words from Latin.

"Wall", "brick", "cellar", "window", etc. are evidence of this. [15: 48 f.] The pre-eminent position of the Upper Italian cities in banking in the 16th/17th century is also demonstrated by the fact that many of the corresponding technical terms in European languages were borrowed from Italian at this time, e.g. German "Bank" [9], English "bank" [22], Russian "bank" [17], French "banque" [3] from the Italian "banco", which itself refers to the mode of operation of the money changers, namely their transactions on market benches. "banco", which itself refers to the way the money changers worked, i.e. conducting their business on market benches. If one of them was unable to meet his obligations, his bank was broken (Ital. "banca rotta" - the root of "bankruptcy"). [9] The fact that the Komi borrowed almost all the reindeer terms in their language from the Nenets language confirms the assumption that reindeer husbandry itself was also adopted from the Nenets. [19: 193]

Another aspect that must be taken into account, especially when evaluating historical business texts, is the problem of the development of meaning. Many words have changed their meaning over

time.

meaning or its scope of meaning changed. When one reads about arts in medieval texts, it is by no means only art in the modern sense that is meant, but also technical installations, e.g. the arts in mines or water arts. The scope of meaning has therefore decreased.

"Cheap" originally meant "right, pleasant". A "cheap price" was a price appropriate to the value. It was only in the habitual use for "low price" that the current meaning "inexpensive" developed. The old meaning has been pushed back considerably (a remnant is preserved in "right and cheap"). [16: 225]

The emergence of new words or the disappearance of old terms can also provide clues to economic history. The introduction of "negotium" in the meaning "upscale business" alongside "commercium", for example, indicates that Roman trade had developed to such an extent that "Commercium", which originally referred to all trade, no longer met these requirements and was therefore only used with a narrowed meaning for small trade. Likewise, the disappearance of "negotium" and the change in meaning of "commercium" are clear signs of the decline of Roman trading power. [6: 232 ff.] The use or avoidance of words also indicates certain economic, political or political circumstances. The word "productive forces", for example, is hardly used in bourgeois scholarship as it is "politically biased" (because it is used by Marxist research). Conversely, Marxist scientists still have reservations about applying the word "planning" to processes in pre-socialist modes of production.

To a certain extent, the existence of specialist languages provides an insight into the state of the social division of labor. The more advanced it is, the more clearly the specialized languages stand out from each other and from the common language. [5: 57 ff.] As a result of the development of science, the technical language of economics has also emerged, although its specific characteristics have hardly been researched to date (see [14] for a sub-area). Philological research results are a natural working material for the economic historian of antiquity. After all, the earliest written records, such as the Sumerian cuneiform tablets from the 3rd millennium BCE, are mostly economic texts and calculations. By deciphering and translating the texts, philology created the basis for their economic-historical treatment.

Literature:

1 *Alberus, E.*: Novum dictionarii genus. Frankfurt/M. 1540; 2. *Bach, A.*: Geschichte der deutschen Sprache. Heidelberg 1965; 3. *Blooch, O.*: Dictionnaire étymologique de la langue française. Paris 1968; 4. *Hartung, W.*: Sprachliche Kommunikation und Gesellschaft. Berlin 1974; 5. *Hoffmann, L.*: Kommunikationsmittel Fachsprache. Berlin 1976; 6. *Jordan, L.*, in: Zur Wirtschafts-Linguistik. Rotterdam 1932, p. 190 ff.; 7. *Klein, H./Plate, R.*: Französische Wortkunde. Munich 1976; 8. *Klein, W./Wunderlich, D.*: Aspekte der Soziolinguistik. Frankfurt/M. 1971; 9. *Kluge, F.*: Etymologisches Wörterbuch der deutschen Sprache. Berlin(West) 1967; 10. *Kusnezow, P. S.*: Russkaja dialektologija. Moscow 1960; 11. *Levy, H.*, in: Zur Wirtschafts-Linguistik. Rotterdam 1932, p. 304 ff.; 12. *Maurer, F./Rupp, H.*: Deutsche Wortgeschichte. Berlin(West)/New York 1974; 13. *Penndorf, B.*, in: Zur Wirtschafts-Linguistik. Rotterdam 1932, p. 178 f.; 14. *Scherzberg, J.*: Untersuchungen zum Wortschatz der Wirtschaftspolitik der Deutschen Demokratischen Republik in der Phase des neuen ökonomischen Systems der Planung und Leitung und bei der Herausbildung des ökonomischen Systems des Sozialismus in den Jahren 1963-1969. Leipzig 1970 (Habil-Schrift); 15. *Schildt, J.*: Abriß der Geschichte der deutschen Sprache. Berlin 1976; 16. *Schippan, Th.*: Einführung in die Semasiologie. Leipzig 1975; 17. *Vasmer, M.*: Russisches Etymologisches Wörterbuch. 3 vols., Heidelberg 1958; 18. *Walde, A.*: Lateinisches Etymologisches Wörterbuch. 2 vols., Heidelberg 1954; 19. *Allgemeine Sprachwissenschaft*. Vol. 1, Berlin 1973; 20. *Sprache. An introduction to modern linguistics*. Vol. 2, Frankfurt/M. 1973; 21. *Theoretische Probleme der Sprachwissenschaft*. 2 vols., Berlin 1976; 22. *The Oxford Dictionary of English Etymology*. Oxford 1966.

Bernd Rindermann

1.4.18. Statistics

Over the last 25 years, a new specialized discipline of economic history has emerged: cliometrics, which is based on the application of mathematical methods and IT. Its aim is to model economic-historical structures and processes and subject them to quantitative analysis. Apart from some more model-theoretical or qualitative-mathematical considerations, these analyses are almost all based on the results of historical statistics and continue these.

Today, statistics is generally understood to mean three different and yet closely interrelated things: I. the methods of recording quantifiable phenomena and summarizing them in numerical overviews (methodology of processing); II. the numerical overviews themselves (statistical sources); III. the methods of evaluating these numerical overviews (descriptive or mathematical statistics); cliometrics, insofar as it proceeds on a statistical basis, deals with the interpretation of the results of historical statistics.

The essential problems of using Statistics II have already been raised by Lenin [203] [LW 23: 284 ff.] They also give rise to the main tasks of Statistics I and III in economic history. Since historical statistics II reflects quantitative changes, the quality of the phenomena to be investigated must first be clear (fundamental to the overall problem in the social sciences [14]). Any statistic is worthless if it is not clear what its statements refer to. It must be clear that *a* number contains only *one* statement about *a* fact, it must be clear *which* historical phenomenon is covered by this number. Since, for example, slaves were not counted as citizens in ancient Rome, they are not included in the census figures - the census does not record the population, but only a part of it that does not remain constant, the citizens. The French unemployment statistics only include the unemployed who receive unemployment benefits - they are therefore not unemployment statistics in the sense of political economy. The historically changing socio-economic content of the categories used must also be taken into account. An "index of industrial production" in France 1700-1960 cannot be such an index because there was no industry at all around 1700 - at best it is an index of non-agricultural production.

Economic historians are interested in what is important to them from the perspective of the present, but the figures available to them are largely dependent on the interests of the institutions and individuals collecting the data at the time in terms of their content and scope. For this reason, historical statistics have been working for years on the construction of so-called long series, which are intended to make long-term historical trends visible. Here, of course, it is particularly important to ensure that the series is homogeneous, i.e. that it actually only reflects one economic-historical phenomenon.

Special monographs on the processing and evaluation of historical statistics are rare [3] [9] [11] [13] [15]; apart from the official definitions of the statistical offices, which are usually published by them, the few available monographs on economic and social statistics can also be consulted for the preparation technique [1] [2] [12] [21]; the mathematical-statistical and biometric literature should also be consulted for the technique of evaluation; see the more economics-oriented works [8] [20] and their bibliographies.

A very important problem is the accuracy of the data, because nothing is more misguided than to believe that statistical data are absolutely exact (fundamentally [10], on the mathematical treatment only [6]). Apart from direct falsifications, the errors are partly based on incorrect survey concepts (e.g. in bourgeois statistics), but partly also on so-called technical measurement errors. The statement, for example, that world food production fell by 1.06% from 1910 to 1911 is completely meaningless, as the error contained in the initial data is far too large to make such a statement - in reality, the movement could also have been the other way round. A certain amount of error should therefore be estimated for all data.

It is absolutely unscientific to use data that has just been "sharply criticized" to calculate "very precise" figures the next moment. [17: 104 ff.]

The application of Statistics III is only possible on the basis of reasonable data. This in turn presupposes an economic-historical penetration of the subject, i.e. knowledge of the nature of the phenomena to be investigated. Otherwise, only nonsense will emerge - for example, the existence of the stork cannot be proven from the parallel movement of the birth rate and the number of nesting storks (see [19] for a collection of cautionary examples).

[204] Examples of the interpenetration of statistical and economic-historical analysis are Lenin's works (above all [LW 3; 4: 1 ff.; 16: 431 ff.; 22: 189 ff.; 40]) and from more recent times [5] [7] [16] [18]. Cliometrics are mentioned in [4] [22] [23] [24].

Literature:

- 1 *Barberi, B.*: Elementi di statistica economica. Turin 1959; 2. *Ders.*: Il metodo statistico nello studio dei fenomeni osservazionali. Turin 1962; 3. *Dollar, Ch. M. J./Jensen, R. J.*: Historian's Guide to Statistics. New York 1971; 4. *Koval'čenko, I. D./Milov, L. V.*: Vserossijskij agrarnyj rynek XVIII - načalo XX veka. Moscow 1974; 5. *Kuczynski, J.*: Die Geschichte der Lage der Arbeiter unter dem Kapitalismus. Vol. 1-38, Berlin 1960-1972; 6. *Kuczynski, Th.*, in: WZHU-GSR 1973 (XXII), H. 5, p. 379 f.; 7. *Mendelson, L. A.*: Teorija i istorija èkonomičeskich krizisov i ciklov. Vol. 1-3, Moscow 1959- 1964; 8. *Menges, G.*: Grundriß der Statistik. Vol. 1-3, Cologne/Opladen 1969 ff.; 9. *Mironov, B. N./Stepanov, Z. V.*: Istorik i matematika. Leningrad 1975; 10. *Morgenstern, O.*: Über die Genauigkeit wirtschaftlicher Beobachtungen. Vienna/Würzburg 1964; 11. *Schiller, B./Oden, B.*: Statistik für Historiker - Historisk Statistik. Stockholm 1970; 12. *Petrov, A. I.*: Kurs èkonomičeskoj statistiki. Moscow 1961; 13. *Shorter, E.*: The Historian and the Computer. Toronto 1973; 14. *Thiel, R.*: Quantität oder Begriff? Berlin 1967; 15. *Ustinov, V. A./Pelinger, A. F.*: Istoriko-social'nye issledovanija, EVM i matematika. Moscow 1973; 16. *Varga, E.*: Konjunktur und Krise 1922-1939. vol. 1-5, Berlin (West) 1977; 17. *Ders.*: Politico-economic Problems of Capitalism. Moscow 1968; 18. *Ders.*: World Economic Crises 1848- 1935. Moscow 1937; 19. *Wagemann, E.*: Narrenspiegel der Statistik. Hamburg 1935; 20. *Wagenführ, R.*: Statistics made easy. Vol. 1-2, Cologne 1963-1965; 21. *Ders.*: Wirtschafts- und Sozialstatistik. Vol. 1-2, Freiburg/Br. 1970-1973; 22. *Matematičeskie metody v istoričeskich issledovanijach*. Moscow 1972; 23. *Matematičeskie metody v issledovanijach po social'no-èkonomičeskoj istorii*. Moscow 1975; 24 *The Reinterpretation of American Economic History*. New York 1971.

Thomas Kuczynski

1.4.19. History of technology

The history of technology as an independent academic discipline is relatively recent. The bourgeois historiography of the 19th century, based on idealistic positions, left little scope for the approaches to the analysis and presentation of the history of technology that had emerged in the last third of the 18th century. Only when the industrial revolution radically reshaped the overall system of productive forces did interest in the history of technology grow. At first, it was primarily engineers who were concerned with the history of the means of labor that revolutionized the production process in the form of the steam engine and the first machine tools. Until the end of the 19th century, the historical sciences established at universities took little notice of such efforts, as a theoretical analysis of material production and its historical development could not be reconciled with the idealist conception of history. Only the historical materialism founded by Marx and Engels assigned technology the place in the system of material productive forces that it has objectively occupied since the time when humans produced tools. Technology is essentially identical with the means of labor; it encompasses the system of artificial organs of social man and unites manifold constructive forms of technological processes. A history of technology has the task of analyzing and evaluating the genesis and function of technology in the labor process and placing it in the general context of historical development. Since technology always exists in lively interaction with man, the most important productive force, a "pure" history of technology will not be able to get to the causes and factors of historical development.

changes. However, a clear definition of the subject of the history of technology and its function in the system of historical sciences has not yet been reached as a result of the discussions to date. One of the most comprehensive definitions was given by Svorykin in 1940, who declared that the history of technology must be defined as a "science that studies the development of the means of labor, including all objective working conditions, in the system of social production, both in connection with the forms of labor and the forms of production.

-The history of technology must show how the laws of nature are becoming more and more comprehensive in its tools. From the standpoint of natural science, the history of technology must show how man in his tools has mastered the laws of nature more and more comprehensively ... mastered ... From the point of view of social science, the history of technology must reveal the socially driving forces, the social conditions for the development of technology, and it must be shown that certain social conditions correspond to a certain type of technology." [14: 13] The discussion on the subject of the history of technology was revived when Shukharardin attempted in 1961 to summarize the dispute among Soviet historians and philosophers that had been going on since the early 1920s. Shukharardin came to the conclusion: "... the history of technology is the science that studies the development of the productive forces of human society." [11: 36] This definition cannot be accepted, as it abolishes the independence of the history of technology by definition and identifies it with the history of the productive forces, thus not assigning the former its own object. The difficulty of a clear definition of both the history of technology as an objective historical process and the science of the history of technology lies in the fact that Marxist historians always endeavor to take into account the dialectical unity and interaction of its elements in the historical analysis of the labor process. This can lead - as Schuchardin's attempt at a definition shows - to the immediate inference from the individual (technology) to the general (the productive forces). Volkov escaped this danger by making the following statement in a consistent continuation of Marx's thoughts: "The replacement of the

The replacement of man's 'natural instruments of production' (Marx) by artificial ones, the transformation of instruments of the human organism into instruments of the mechanical apparatus or the replacement of 'human forces by natural forces' (Marx) forms ... the basic principle of the 'self-movement' of technology, the law of its entire development." [17: 73 f.] Marx paid particular attention to this law of technical development when he dealt with the stages of the transition from medieval craftsmanship to manufacture and from this to the machinery of large-scale industry. [MEW 23: 356-530] The significance of studies in the history of technology for economic history, insofar as it deals with the industrial revolution, for example, is illustrated by the history of machine tools as well as the history of the steam engine. Changes both in the structure of the productive forces and in the relations of production can be traced back directly and indirectly to developments in the history of technology [206]. The same applies to the economic-historical assessment and classification of the scientific-technical revolution, whose stages of development and characteristics cannot be determined without a precise analysis of technical (and scientific) changes.

Interest in the history of technology has grown worldwide since the early 1960s. The reasons for this lay on the one hand in the rapid development of science and technology under the sign of the scientific and technological revolution, which called for historical comparisons with the industrial revolution and in particular justified the need to examine the "leap" from mechanization to automation. On the other hand, it was the "Sputnik shock" [4: 16] that provoked the question in the capitalist countries as to the reasons for the Soviet Union's superiority in certain areas of scientific and technological progress. In the Soviet Union, the history of technology can look back on a long tradition. [In accordance with a decision by the Central Committee of the CPSU, the teaching of the history of technology began at the country's technical universities in 1929 as part of the First Five-Year Plan. In 1932, the Institute for the History of Science and Technology was founded, which has since emerged as an academy institute with significant research results. In the socialist countries

The mid-1950s saw the beginning of more intensive research into the problems of the history of technology. While in the years 1968-1972 Soviet authors had emerged with publications on the position of the classics of Marxism-Leninism on fundamental problems of technology and its history, which were also available in German translation shortly afterwards [8] [9] [13], an attempt was made in the GDR to present the function of the "productive forces in history" [6]. At the same time, other authors endeavored to write a history of technology that would meet the need of the widest readership for a popular presentation of the development of the history of technology. [1] In the imperialist countries, the historiography of technology was forced to accept the challenge of Marxism-Leninism. Since then, younger historians in the FRG in particular have endeavored to redefine the theoretical starting point of their technical-historical investigations. [15] [16] However, the inability of bourgeois philosophy and history of technology to "correctly answer questions about the relationship between technology and society, between technological determination and social freedom and about the 'practical consequences of scientific and technological progress'" [4: 15] can already be seen in the false premise preceding such questions that the allegedly fundamentally changed attitude towards modern technology was provoked by the "growing insight into a rapid process of destruction of the basic conditions of human existence brought about by modern technology" [4: 16]. With such a basic theoretical attitude, it is not to be expected that investigations into the history of technology, the number of which has increased in the imperialist countries in recent years, will break through the boundaries of a collection and interpretation of facts.

Literature:

- 1 *Brentjes, B./Richter, S./Sonnemann, R.*: Geschichte der Technik. Leipzig 1978; 2. *Daumas, M.*: in: *Modern History of Technology*. Cologne 1975, p. 31 ff.; 3. *Figuirowski, N. A.*, in: *Soviet Contributions to the History of Natural Sciences*. Berlin 1960, p. 1 ff.; 4. *Hausen, K./Rürup, R.*, in: *Moderne Technikgeschichte*. Cologne 1975, p. 11 ff.; 5. *Jonas, W.*: Über Probleme der Geschichte der Produktivkräfte. Berlin 1964; 6. *Jonas, W./Linsbauer, V./Marx, H.*: Die Produktivkräfte in der Geschichte. Vol. 1, Berlin 1969; 7. *Kar-[207]marsch, K.*: Geschichte der Technologie seit der Mitte des 18. Jh. München 1872; 8. *Kusin, A. A.*: Karl Marx und Probleme der Technik. Leipzig 1970; 9. *Melestschenko, J. S./Schuchardin, S. W.*: Lenin und der wissenschaftlich-technische Fortschritt. Leipzig 1972; 10. *Olszewski, E.*, in: *Kwartalnik Historii Nauki i Techniki*, 1962 (6), p. 91 ff.; 11. *Schuchardin, S. W.*: Grundlagen der Geschichte der Technik. Leipzig 1963; 12. *Schuchardin, S. W./Svorykin, A. A./Osmowa, N. L./Tschernischew, W. I.*: Geschichte der Technik. Leipzig 1967; 13. *Stoskowa, N. N.*: Friedrich Engels über die Technik. Leipzig 1972; 14. *Svorykin, A. A.*: Očerki po istorii sovetskoj techniki. Moscow 1940; 15. *Troitzsch, U.*, in: *TG* 1973 (40), 1, p. 33 ff.; 16. *Ders.* in: *TG* 1976 (43), 2, p. 92 ff;
- 17 *Wolkow, G. N.*: *Sociology of Science*. Berlin 1970; 18. *Bibliographie Geschichte der Technik* (formerly: Informationsdienst Geschichte der Technik [IGT]. Dresden 1960 f.). Dresden 1971 f.

Rolf Sonnemann [208]

1.5. Historiography, sources, working methods

1.5.1. Historiography of economic history

1.5.1.1. *The prehistory of economic historiography*

By historiography we mean, on the one hand, the writing of history - a historiographer is a writer of history - and, on the other, the science, in particular the theory and method, of writing history. In the following, we understand historiography to be the science of writing economic history.

Economic history as a science in the narrower sense, as the study of the history of the economy within the framework of the economic laws determining its course, only became possible with the establishment of political economy in the 17th century. This does not mean, however, that we do not have numerous interesting and significant contributions to economic history in the form of news, compilations of facts, religious and philosophical speculations, etc. long before that.

Just think what a source of information for economic history the ancient clay tablets of Mesopotamia are, with very specific details about taxes and tributes, or the Old Testament, be it the spies' reports in the Book of Joshua or the stories about Joseph. Indeed, the Bible probably gives one of the first economically determined outlines of the history of mankind with the story of paradise and the expulsion of man, who must henceforth work by the sweat of his brow in order to live. As improbable as paradise must seem to us, the idea of man's history on earth beginning with the fact that he has to work, and work hard at that. Still missing is the idea that in the future he will do everything to make work easier and at the same time increase the yield of labor. Many of the economic messages from ancient times are not even given as such. Of course *Homer* did not intend to contribute to the history of the productive forces. But what information of this kind *Engels* drew from the *Iliad*, for example in "The Origin of the Family, Private Property and the State"! Read, for example: "The highest flowering of the upper stage of barbarism confronts us in the Homeric poems, especially in the 'Iliad'. Iron tools; the bellows; the hand-mill; the potter's wheel; oil and wine-making; a developed metal-working process that developed into handicrafts; the chariot and chariots; shipbuilding with beams and planks; the beginnings of architecture as an art; walled cities with towers and battlements; the Homeric epic and the entire mythology - these are the main inventions that the Greeks took over from barbarism into civilization." [MEW 21: 34]

Thucydides begins the second paragraph of his "History of the Peloponnesian War" with the following remarks: "Obviously, modern Greece [209] did not have a permanent population for a long time; on the contrary, it was not unusual in older times for a tribe to change its place of residence and abandon the old one without further ado when it was pushed by a more numerous people. There was no trade and no secure transportation, neither by land nor by sea. People lived from hand to mouth and did not think about collecting riches or cultivating the land more carefully, as one could never know whether someone else would come and take everything, especially as the residences were not fortified. What you needed for daily life was available everywhere, and so people emigrated without hesitation. That is why there were no large cities or greater prosperity in those days." [20: 5 f.] Isn't that more than just a factual contribution to economic history!

So rich are the "materials" for an economic history of antiquity, ancient Greece and Rome that the 19th and 20th centuries brought a wealth of economic history works on them - from *August Böckh's* "Die Staatshaushaltung der Athener" (1817, 2 vols.) to *Michael Rostovtzeff's* "Society and Economy in the Roman Empire" and *Elisabeth Charlotte Welskopf's* "Production Relations in the Ancient Orient and in Greek-Roman Antiquity".

When we think of the history of the European economy, the material of the economic historiography of the slave-owning society and of feudalism is quite obviously different in that for antiquity we have numerous fragments of economic history which the

We do not have a complete description of the economic situation, as for example in the writings of *Cato*, *Columella* and *Varro*, whereas for the feudal period (up to the 15th century) we have to rely on documents such as rent agreements, legal rulings, contracts and the like for the interpretation of economic events. This does not seem so surprising when we consider that the agricultural economy in Greece and Rome, and therefore also the development of the first beginnings of political economy, played a completely different role than in feudal Europe. The only exception in the feudal period up to the 15th century was probably travelogues such as those by *Marco Polo* (1254- 1323), which already contain interesting economic reports.

Arab historians seem to have been more open to the world of economics, among whom the Tunisian *Ibn Khaldun* (1332-1406) stands out with his "Prolegomena to a History". He not only attempted a periodization of human history, in which each period had its own cultural, political and economic characteristics, but also believed that economic factors had an important influence on people's lives and their development. In contrast to the cosmopolitan comparative historiography of the Arabs is the Chinese historiography, which is generally restricted to "the Middle Kingdom". However, there is no historiography that reports so continuously over such a long period of time and so systematically as the Chinese - including on economic conditions, often in the form of reports on the effectiveness of economic policy measures taken by the central government! When one considers that the so-called shih-lu alone contain a daily account of the most important events at court and in the government for the period 1368-1912, that, as *Arthur F. Wright* [25: 403] notes, the 25 dynastic histories written in the imperial period comprise some 45 million words in English translation, i.e. about 130,000 book pages or about 430 volumes with 300 pages each, then one can imagine that such a quantity alone as a pure source must turn into quality and that Marxist historians could write an excellent economic history of China.

[210] The European 15th century brought a decisive change in the writing of history and thus also in the writing of economic history. *Bernheim* remarks: "Only the great transformation in thinking and in the whole way of looking at things that took place in Europe from the 15th century onwards gradually created the preconditions necessary for the development of the genetic conception of history. The powerful impulses of more active world traffic, humanism and the Reformation expanded the field of observation and deepened its nature. One began to notice the difference between nations and their education, the influence of natural and social conditions on the character of the people; through the enthusiastic study of antiquity one learned to live in and understand the spirit of a completely different time and culture; one felt the distance between classical antiquity and the Middle Ages and thus recognized the great change of times that had taken place in the course of history; The origin and development of church constitution and religion, of state institutions, were examined, compared with each other and their various forms sought to be understood; interaction and connection between the various activities of mankind were noticed; inductive research and progressive philosophy broadened the scientific horizon more and more in all directions - in short, it was recognized that there was a uniform linkage of facts and a continuity of human development." [1: 37] How the voyages of discovery and research to America, India and elsewhere had to broaden the view, and how necessary it was for the explorers to give their now more and more capitalistically interested sponsors "economic reports"!

Indeed, it is fair to say that, like political economy, economic history in the narrower sense (as imbued with theory) and in the broader sense (as a collection of facts and description of relationships) owes its actual development to capitalism.

With the "genetic" conception of history and the recognition of ever new "cultures", a genuine periodization of history also began, which had previously, with few exceptions, been a purely chronological or ruler- and dynasty-oriented one. And this periodization of history,

The history of mankind as a whole, in particular, was often oriented towards economic developments.

At the same time, with the development of capitalism, the literature of monographs on specific economic sectors, economic processes, etc. begins.

1.5.1.2. Stage theories of economic development

Bodin, Grotius, Pufendorf, Montesquieu

The idea of social progress, which has only been part of the thought of the educated world since the Renaissance, very quickly brought astonishing results in the appropriation of reality, because with the idea of social progress two questions had to arise very soon. Firstly, what causes progress? Secondly, can the history of mankind be divided into periods or stages corresponding to progress?

Of course, long before the Renaissance, we find individual ingenious views in this direction - for example in *Lucretius* in "De rerum natura" and also in the aforementioned great Arabic writer *He Khaldun*. But as a more general body of thought, at least of a "direction" that has lasted to this day and which, because it is grounded in reality, is increasingly turning from a direction into a general scientific view, into a universally valid method of appropriating social life, we first find it in Europe since the Renaissance. The first two great thinkers who thought and worked in this way as "founders of a school of thought" were the Frenchman *Jean Bodin* (1529 or 1530-1596) and the Dutchman *Hugo Grotius* (1583-1645).

Bodin and *Grotius* assumed that people originally lived peacefully and helped each other in a state of equality. *Bodin* believed that "equality was the mother and giver of peace and unity". [2: 522] Both *Bodin* and *Grotius* saw the unequal distribution of land, among other things, as an important reason for the end of this stage of human history.

The division of labor also played an important role in the transition to a new kind of social life, especially for *Grotius*. For him, the first division of labor was that between agriculture and animal husbandry; it caused "a departure from the first community" [6: 219].

Samuel Pufendorf (1632-1694) is notable for his historical doctrine of property, which is the subject of chapter 4 of book 4 of his great work "On Natural and International Law". In his introduction to the Carnegie edition of this work, *Walter Simons* comments on *Pufendorf's* explanations there: "The origin of property from the original common property is established in the fourth chapter, following the teachings of Grotius and in contrast to numerous writers of the time, to the effect that it is not a direct, but a derived institute of natural law. Pufendorf does not regard property as a divinely sanctified order, but as a human statute based on tacit or explicit agreement. God has indeed, like the animals, ordained the earth and what grows and lives on it for human use, but the limits of use, its outer and inner measure, is left to their arbitrariness. They can just as well determine that all or individual things remain common, as they can distribute the power over things between individuals in the form of property to the exclusion of others ... Pufendorf also considers the acquisition of property through occupation to be a derivative process that does not correspond to the state of nature." [14: 36 a]

However, says *Pufendorf*, one can very clearly observe a development of private property based on material facts: "But the original community (*communio*) could not last in this state if people did not want to constantly starve and walk around naked. Nothing prevented this state from lasting with little property as long as the number of people was small and they led a simple life. It is certain, however, that the more the number of people increased, the more man's labor activity improved, the more the need for more things to become property grew." [14: 378]

This is a thoroughly materialistic theory of the development of private property, but, as with his predecessors, it recognizes only two stages of development: the "primal stage" (which may still be preceded by paradise) and "civilization", which of course progresses constantly, but without the "forms of production" - hunting and fishing, nomadic economy, agriculture - following one another. According to the Bible, he regarded these three forms of earning a living as three simultaneous forms of existence after the expulsion from paradise, not as three stages of development - after all, Cain and Abel were also shepherds and farmers at the same time. The progress that *Pufendorf* sees in history takes place simultaneously in all three forms of production.

We should mention Montes-[212]quieu (Charles Louis de Secondat, Baron de la Brède et Montesquieu, 1689-1755) as the last great thinker among the "pre-stage theorists". Not that *Montesquieu*, any more than the three thinkers discussed above, wrote an economic history; for him, too, there are no stages of development insofar as hunting, nomadic economy, agriculture and trade or craft economy do not represent stages of development. However, no one before him had established such a clear dependence of the superstructure - legislation, which he deals with in his main work "De l'Esprit des Loix" - on the basis. He writes in the 18th book of this work:

"The laws have a very important relation to the way in which the different peoples procure their subsistence. A people engaged in trade and navigation must have a more comprehensive code of laws than a people who are content to cultivate their lands. The latter needs a larger one than a people who live by their herds, and the latter again a larger one than a people who live by hunting." [13: 240] In other words, the more developed the economic basis, the larger the code of law.

Further in chapter 13: "The extent of the civil code increases mainly through the division of land. Among those peoples who have not yet made this division, there will be very few civil laws." [13: 241]

But even if *Montesquieu* distinguishes between the state of savagery and that of barbarism - a classification of the earliest period which *Engels* will adopt (see, for example, "The Origin of the Family, of Private Property and of the State") - there is, as already remarked, still no gradual classification of progress in his work, even though a connection between the lower and higher states of the mode of obtaining a livelihood and of legislation is very clearly set forth. But one stage does not grow out of the other according to law.

Turgot, Goguet

The political economist and cultural philosopher *Anne Robert Jacques Turgot* (1727-1781), one of the rare geniuses of the social sciences who already achieved great things in his early youth, made a huge advance on the jurists *Bodin*, *Grotius*, *Pufendorf* and *Montesquieu*. We find the first beginnings of a real stage theory of development in his "Second discours sur les progrès successifs de l'esprit humain" (1750) and then in his study "On Political Geography" (1751), in which he writes: "The successive changes in the way of life of men and the order in which they followed one another (are): Peoples who are hunters, pastoralists, agriculturists." [17: 259]

However, *Turgot* only really developed his theory of stages in more detail in the immediately following work on a "universal history" (1751 or 1752). He begins his investigations with the time after the Flood and thus avoids all the difficulties that arise from Paradise and the calls of Abel and Kam.

The first humans "moved without a fixed destination, wherever the hunt drove them", he writes. [17: 279]

The next stage is that of the shepherds, and this can only be reached where there are animals "which can be subdued by men, like cattle, sheep, goats, and men find it more advantageous to gather them into herds than to run after wandering animals" [17: 279].

Where, as in America, there are no such animals, people have remained hunters.

"The pastoral peoples, having a more abundant and more secure livelihood than the hunters, have been more numerous in population. They have begun to be wealthy and to develop a greater sense of private property ... the herds ... feed more people than are necessary to care for them." [17: 279 f.] The surplus product has entered the history of mankind. And this also marks the beginning of the spread of culture in a narrower sense. "The wanderings of pastoral peoples," notes *Turgot*, "leave more traces than those of hunters. Sensitive and susceptible, through the leisure they enjoy, to a greater number of needs and desires, they rushed to where they expected greater economic success and seized it." [17: 280] It's great how a relationship is already established here between more product, more leisure, increased life needs and the pursuit of more product.

For *Turgot*, the first slaves also appear at this time, also due to the extraction of more produce and wars. When one nomadic tribe defeats another and takes its herds, the defeated are left without a livelihood, "they follow the fate of the animals and become slaves of the victors, who are fed for tending the herds". [17: 280]

The next stage is that of the cultivators, which was first reached by pastoral tribes in fertile regions. "The farmers are not warlike by nature, the cultivation of the earth occupies them too much; but since they are richer than the other peoples, they are forced to defend themselves against violence. Moreover, the earth feeds more people than are needed to cultivate it. Hence the people who have leisure; hence cities, trade, all the useful arts (crafts - the author) and those of pure pleasure, hence the more rapid progress of every kind, for everything follows the general progress of the spirit; hence also a higher art of war than that of the barbarians; hence the division of labor, the inequality of men." [17: 282] After three stages - hunter, shepherd, farmer - humans have reached the fourth stage of their development, that of "commerce", the cities. According to *Turgot* - and this is also an astonishing feat of thought - this progress went faster and faster ... a first more than a hint of the law of accelerated progress in history, which of course does not exclude setbacks.

If we take all three early writings mentioned here - the Discourse on the Progress of the Human Spirit, the Political Geography and the Universal History - together, all of which were probably written within one or two years, then we find in the first still a predominance of idealistic views, but at the same time probably a stronger emphasis on the role of inequality among people for development, but in the last already a materialistic view of development and a periodization of history according to the way in which people earn their living.

However, with the exception of slavery, the relations of production do not yet play a role. This will only be the case in the work written 15 years later, in the "Réflexions sur la formation et la distribution des richesses", which Marx valued so highly as a theoretical work. There, *Turgot* puts forward the following theses, among others:

§ 8 First division of society into two classes: one *productive* or farmers, one *salaried* or tradesmen.

§ 9 In the early days, the landowner need not have been different from the farmer.

§ 10 Progress of society; all land has one master.

§ 11 The owners begin to be able to pass on the cultivation of the land to paid agricultural laborers. [214]

§ 12 Inequality in the distribution of land ownership: reasons that are unavoidable.

§ 13 Consequence of inequality. The farmer is distinguished from the landowner.

§ 14 Division of the products between the farmer and the landowner. *Net yield* or *income*.

§ 15 New division of society into three classes: *Farmers, tradesmen and landowners, or productive, salaried and available class.*" [21: 44 ff.]

Truly, these theses on political economy are at the same time theses on the economic history of mankind! Here we see how, on the basis of economic laws, mankind progresses from one kind of order of obtaining a livelihood to another with different relations of production - but still without a clear division into different social orders, as developed by *Marx* and *Engels*.

The next important French stage theorist was *Antoine Yves Goguet* (1716-1758), again a lawyer. His main work "De l'origine des loix, des arts, et des sciences; et de leurs progrès chez les anciens peuples", Paris 1758, was published in German as late as 1760 under the title "Untersuchungen von dem Ursprung der Gesetze, Künste und Wissenschaften, wie auch ihrem Wachstum bei den alten Völkern" in three volumes.

Goguet also begins with the history of mankind after the Flood. Methodologically, it should be emphasized that he makes the greatest effort to evaluate the ancient sources, be it the Bible or *Homer*, and, like a number of other writers of the time, to use analogies from the present, e.g. the Indians as an analogy to the earliest social states of mankind. He is quite satisfied with the material left to us from ancient times: "Although time and barbarism have deprived us of many works of antiquity, this loss has, in fact, only robbed us of knowledge of some historical circumstances, some trifles, and some particular events. There are still enough historical monuments of all kinds left to be able to deduce from them the general state of the arts and sciences among the ancient peoples." [5: IV]

Subsequently, the research methods will not change fundamentally: We know, for example, what role *Homer's* descriptions played for *Engels* in the investigation of earlier conditions and with what interest *Marx* and *Engels* followed and used *L. H. Morgan's* research on the Indians as an analogy for the conditions of the primitive community. Of course, the collection of materials has since become far more skillful and comprehensive, but even today we still work with both old materials and analogies. Even today, *Goguet's* statement, which for him is already a tradition, is still subscribed to: "The reports from America on this piece were particularly useful to me. One must judge the state in which the old world found itself some time after the Flood from that which was still taking place in a large part of the new world when it was discovered." [5: X]

Goguet develops a stage theory of the development of human society most clearly and distinctly in the following passage:

"Subsistence is the first and most important object with which the nascent societies must have occupied themselves: but these attempts were more or less perfect, according to the diversity of the regions and the genius of the various peoples. In some countries they may have begun to perfect hunting and fishing. Hunting was, in the first place, the principal occupation of the first men among the greater part of the ancient peoples." [5: X] This is the first stage of development: the hunter society.

"However, industrious peoples soon noticed that among this innumerable multitude of animals spread over the surface of the earth, there were species that lived together and in society. It was even noticed that these species were naturally less wild than the others. Means were sought to tame them, enclose them in gardens and allow them to reproduce. In the first centuries, and for a long time afterwards, a large part of the peoples drew their sustenance from the herds. We know of many powerful and extensive peoples who still practise this way of life." [5: X]

This is the second stage of development: the nomadic or pastoral society.

"The earth produces a multitude of plants and fruits which, without being cultivated, provide man with strong and pleasant food. People began to select the best species, and especially those that survive for a long time after they have been collected: they were careful to make a stock of them. The art of making them grow and increasing their number and properties through maintenance was subsequently learned. To this discovery we owe the astonishing amount of arts and sciences that we enjoy today." [5: 83 f.]

Goguet perhaps comes closest to a fourth stage of development in an even later remark: "The construction of chalk could not have progressed without other arts having had it at the same time. There is the most exact relationship and connection between these things, which almost do not allow them to separate"; - great this dialectic! - "Therefore, as the art of agriculture improved, other arts took their origin; and those that had already been invented became more perfect. Diligence was first applied to the most necessary. The arts of splendor followed later. And I shall follow this order in what remains to be said in this matter." [5: 120 f.]

It is not actually trade that constitutes the fourth stage, but "splendor", based on a considerable surplus product. We also encounter the same train of thought: "The art of building was thus born of necessity, but its adornment comes from abundance." [5: 133]

Goguet does not delve as deeply as *Turgot*: the role of the surplus product and leisure are not worked out as clearly. But unlike *Turgot*, who only gives a sketch of economic development, *Goguet* has given a history of the objects of production, the instruments of production, and indeed of the productive forces in general in the Old World. It is at this time that these important elements of social life begin to attract general attention. It is the time when the foundations for a history of the productive forces are being laid.

Home, Millar, Smith

The long-standing close links between the politics and then the culture of France and Scotland meant that the economic-historical ideas developed here were also developed and further developed in Scotland, partly in an original way, naturally based on Montesquieu, and partly in a derivative way.

The first to be mentioned here is *Henry Home, Lord Kames* (1696-1782), a lawyer whom *Lessing* also valued as a literary critic and whom *Adam Smith* described as "the master of us all".

Home is an astute observer who knows how to connect the past with the present. Listen to him, for instance, on the earliest condition of mankind, [216] when they lived by hunting: "In temperate regions the original food of mankind was fruit, which grows without culture, and the flesh of land animals. But as such animals become timid when hunted, nature has arranged it in a way no less simple than effective, so that men bear the hardships of the chase and the uncertainty of the catch with cheerful courage; and this is the pleasure of hunting. Hunger alone is not sufficient; the savages, who act according to feeling and not prudence, do not move when their stomachs are full; and it would be too late to think of a hunting party when their stomachs are empty. Since this desire to hunt is present in every savage who relies on hunting for food, it is, among many other things, an example of wise providence that it has arranged the inner constitution of man according to external circumstances. The desire to hunt, although it is not necessary in our case for food, is still evident today in young people of high and low birth. The natural inclinations can be made weak or dark, but never completely eradicated." [8: 53 f.]

How beautiful - and in what contrast to the story of the expulsion from paradise! - does work appear here as a kind of vital need of man - when was this probably for the first time? We

do not yet have any studies on this. Hunting is not only justified by necessity, but also by man's desire to hunt. And that he has such a desire is cited as proof that people of all classes and social strata still hunt today, even though they have completely different occupations to earn their living.

And it is also quite astonishing how God's actions are materialistically justified! Where else is there such a thing? For "wise providence" has "arranged the inner constitution of man" (his desire to hunt) "according to his outward circumstances", according to the necessity for him to hunt.

But of course necessity remains the decisive factor right up to the time of *Home*: "Hunger, as the cause indicated here, is the most predominant of all; and the very cause which overcomes indolence and idleness has also introduced manufactures, commerce, and many other arts." [8: 61]

As far as the development of the "useful arts" is concerned, *Home* clearly recognizes that leisure, that free time, is a necessary prerequisite for their development. "In the hunter's state, men are entirely occupied with the acquisition of food, clothing, housing, and other necessities, and have neither time nor inclination to think of comforts. The tranquillity of the pastoral state affords both time and pleasure for useful arts, which have been greatly promoted by many who are freed from the physical labor of agriculture. The soil, by the gradual improvements in husbandry, yields a great abundance with less labor than at first; and the remaining hands are used first in useful arts, and afterwards in the arts for amusement. The arts, therefore, have the most rapid growth in a fertile soil, which yields abundance with less labor." [8: 106]

A clear connection is established here between the production of surplus product, leisure and the development of manual skills, technology and later science.

The insight into the progress of mankind is truly amazing!

The high point of this development in Scotland and, if we disregard the long unpublished manuscripts of the very young *Turgot*, the high point of this development before *Marx*, were the thoughts and reflections of *John Millar* (1735-1801), a pupil of *Home* and *Smith*, in the 1750s.

"Observations concerning the distinction of ranks in society" (London 1771) with probably a private edition published in Dublin in the same year.

Millar really links the entire superstructure in its development with the way in which people earn their living. The first chapter, devoted to the study of the position of women, is organized as follows:

"Rank and situation of women in the different eras

1. The effects of poverty and lack of culture on the situation of women
2. Influence of the mother of a family before the consolidation of marriage as an institution
3. The pastoral age - The refinement of erotic passions under the conditions of pastoral farming and pastoral existence
4. The impact of arable farming on gender relations
5. The changing importance of women due to advances in the practical areas of crafts and trades
6. Great luxury and care for the comforts of life - their effects on the respective situations of men and women." [11: 5]

We can immediately see what a major role stage theory plays in *Millar's* work.

The first three paragraphs of his introduction already demonstrate *Millar's* extraordinary aplomb as a social scientist.

He starts from the usual social interests of historians, philosophers, etc. in society: "In researching the customs and traditions of peoples, one essentially had two things in mind. From the observation of the different legal systems that had developed in various parts of the world and from the knowledge of the consequential connections that came to light, one wanted to utilize the experiences of other people and make a selection from among the state institutions and forms of government that were most likely to deserve imitation." [11: 47] Legal, political and state conditions are what interested these men.

But this is initially only a superficial interest. The thinking goes further and deeper, or it should: "To trace the causes of different customs is also considered a useful and at the same time entertaining occupation of thought. If we consider the astonishing differences in the legal regulations of different countries, even within one and the same country at different epochs, it is natural that our curiosity wants to find out how mankind was actually led to decide on such very different rules of life. At the same time, however, it becomes clear that only if we know the conditions under which certain rules were once recommended for human behavior can we gain a proper understanding of their usefulness or even decide to what extent they are applicable in a particular case." [11: 47] How can we select the most suitable forms of law and state for "imitation" if we do not know why they were developed in the way they were, what conditions they corresponded to and what conditions are of importance for the law and state in general?

Miliar explains: "In the search for the reasons for the peculiar forms of law and government which have developed in the world, we must certainly go back first of all to the very different circumstances of life, from which the differences in the views and motives of action arose for the inhabitants of certain countries. These, however, are the fertility or infertility of the soil, the nature of the natural products, the forms of labor necessary for subsistence, the number of heads belonging to a community, the level of skill in handicraft practice, the favor or disfavor with regard to the conditions of mutual exchange in general and the possibilities of closer personal relations. The diversity which often shows itself in such and many other details must also have a multitude of effects in the whole community of a people; for in so far as the wishes and interests of the people here take a certain peculiar direction, certain corresponding habits, dispositions and ways of thinking must also emerge from them." [11: 47] These are all material factors that determine society: Objects of labor, instruments of labor, the size of the population, the technical level ("level of skill in manual practice"), trade opportunities and internal intercourse.

Yes, this lays the foundation for an economic history and at the same time establishes its significance for all history, for all progress!

Adam Smith (1723-1790) was the last important stage theorist. If the prehistory of the stage theories was written mainly by lawyers with a wide range of education, their history began with a great political economist, *Turgot*; he was again followed mainly by highly educated lawyers; at the end of our consideration is again a political economist, a genius like *Adam Smith* - but (!) neither *Turgot* nor *Smith* were political economists when they developed their stage theories: *Turgot* was a young beginner on the way to acquiring a general education, and *Smith* was a philosophy professor and law teacher.

The stage theory was certainly developed by *Smith* in the lessons he gave on jurisprudence to his students of moral philosophy in 1762/63. The great political economist, who at that time was still primarily concerned with legal and philosophical issues, thus formed the theory as a lawyer, like so many before him. His stages are "The Age of Hunters", "The Age of Shepherds", "The age of agriculture" and "The age of trade and industry" (commerce).

In these lectures, he pursues the role of these four stages for society as a whole, particularly in relation to the development of law and the form of government. Unfortunately, we have no work by *Smith* for these lessons, only student notes based on the lectures.

However, *Smith's* importance as an economic historian lay not so much in his use of stage theory as in the combination of economic history and economic theory that we find in his magnum opus of political economy, *The Wealth of Nations*. In fact, I am not afraid to say that there are only two political economists who have combined theory and history in a comprehensive work: *Adam Smith* and *Karl Marx*.

Economic history served *Adam Smith* to derive and justify his theory, and since his theory was one of the manufactory system, his economic history is primarily concerned with the period of this system. It was first and foremost contemporary economic history - even where he thought he was going further back into the past, whereby the significance of *Smith* as an economic historian is limited to his time or, more correctly, to the economic system that existed in his time.

This has to do with a weakness of all stage historians. For *Smith*, as for all his predecessors, history basically consists of three stages, all of which fall mainly in ancient times, in the "primitive society", and one stage which covers the whole of later times up to the present, or of two stages of primitive society, the stages of hunters and herdsmen, and the "modern" stage of agriculture, of which the stage of commerce is generally only an offshoot. That is why *Goguet's* work, for example, which expressly covers only antiquity in its title, is completely sufficient to develop the entire stage theory up to the present day. This is why *Smith* sees no difference in principle between his present work and the developed economy of the ancient Greeks and Romans, for example, as far as economic categories and laws, property and the form of the state are concerned. However, he does not go as far as *Ricardo*, about whom I wrote, quoting *Marx*:

He advocates the class standpoint of the capitalist system so unrestrainedly that he declares it to be, to a certain extent, the mother of all things. And if the unhistorical Adam Smith at least still recognizes the "primitive community" as the forerunner of capitalism, Ricardo's primitive hunters and fishermen are already capitalists. Marx comments on this with biting wit: "Ricardo is not without his Robinsonade either. He has the primitive fisherman and the primitive hunter immediately exchange fish and game as owners of commodities, in proportion to the labor-time objectified in these exchange values. On this occasion he falls into the anachronism of having the primitive fisherman and the primitive hunter consult the annuity tables that were available on the London Stock Exchange in 1817 to calculate their instruments of labor. The parallelograms of Mr. Owen (Owen proposed cooperative settlements to solve the unemployment problem, which were to be divided into parallelograms - the author) seem to be the only form of society he knew apart from the bourgeois one. (After Marx: 'On the Critique of Political Economy', p. 38, 39.)"

For *Ricardo*, the laws of bourgeois production are the laws of production in general. As ingenious as his research on the laws of capitalist production is, his point of view and therefore also his research results are limited, since he identifies the historical categories of the capitalist mode of production with a fiction, namely a mode of production in itself. [10: 138]

For *Smith*, the laws of production and the laws of the capitalist manufactory period are practically identical. But to justify these laws, he gives an excellent account of the economy of the manufactory period, looking back to "very early times" and to countries other than England.

1.5.1.3. Monographs and branches of economic history

Petty, King

William Petty (1623-1687), whom *Charles Davenant* already called the father of economics and whom *Marx* characterized as the founder of modern political economy, was probably

He was also the first great economic historian in the sense that he wrote primarily on economic history - whereby economic history is to be understood specifically as contemporary economic history. He developed both the comparative and the quantitative method of economic historiography - an enormous achievement in the field of economic science in addition to his purely theoretical work.

His main work on economic history is probably "Political arithmetic" or "Political statistics", the first version of which was written in 1671 according to him, but was not published until 1690, after his death, for political reasons. In particular, he compares the conditions in England with those in Holland and France. The method is the quantitative one, and he comments on it: "The method (of 'ordering things') which I use is not very common; for instead of only comparative and the highest degree expressing words [220] and intellectual arguments, I have gone the way (a specimen, a pattern of political arithmetic, which has long been my aim) of expressing myself in *number, weight and measure*". [24: 244]

Petty attached great importance to the population, its numbers and its structure. "By knowing the number of able-bodied persons between the ages of ten and seventy, and the number of those already employed, it is possible to ascertain how many free hands there are, and consequently what new trades can be introduced without destroying those already existing." [26: 197] He also developed new methods in the field of population statistics together with his friend *John Graunt* (1620-1674). 80 years after *Petty's* work, *Johan Peter Süssmilch's* work "Die göttliche Ordnung in den Veränderungen des menschlichen Geschlechts aus der Geburt, dem Tode und der Fortpflanzung derselben erwiesen" (Berlin 1741) was published, of which *Rascher* writes: "This is actually the first detailed population theory which, in this respect following *Graunt*, *Petty* and *Kersseboom* (1691-1771 - ed.), treats its subject as a scientific end in itself." [16: 421] Here again we recognize the pioneering character of *Petty's* work on economic history - his collaboration with *Graunt* was so close that it is probably right to assume that a large part of the bolder ideas in *Graunt's* "Natural and Political observations made upon the Bills of Mortality" (1662) originated with *Petty*.

We also owe a historical work, in the sense of going further back in time, to *Petty*, a "History of Dyeing", an essay he had written for the Royal Society - part of his efforts to interest the Royal Society in a history of the trades, for which he had already worked out detailed plans. [22: 425]

If *Petty* made the first known estimates of the national income in his "Verbum sapienti" (1665), *Gregory King* (1648-1712), son of a mathematician - *Petty* also attached great importance to mathematics - was the first to give an exact overview of the income and expenditure of the families living in England in 1688 according to their number, social status and occupation.

Like *Petty*, *King* also extended his economic-historical studies to England's main rivals, France and Holland, and calculated comparative data on national income and national expenditure for them and England (Of the Naval Trade of England Anno 1688 and the National Profit then arising thereby [1697]).

With *Petty* and *King*, economic history has made great progress, and indeed as a quantitative discipline right from the start. Like its theoretical part, it arose directly from the needs of practice.

Fleetwood and quantitative economic historiography

As significant as the achievements of *Petty* and *King* are in the field of economic history using quantitative methods, a quantitative economic history study going back into history is still missing. But not for long, because it will appear in the lifetime of *Gregory King* and *Charles Davenant*. Its author is *William Fleetwood* (1656-1723), the

the most famous English preacher of his time, a Fellow of Kings College in Cambridge, chaplain to King William III and his successor Queen Anne, progressive in his views and, as the crowning glory of his ecclesiastical career, Bishop of Ely.

As early as 1694, he preached a sermon against the tilting, i.e. cutting off the edges of coins, which effectively reduced their value without changing their nominal value. He believed that the value of a "half crown", a half crown equal to 2½ shillings, had fallen to such an extent that what would have cost only 2½ shillings in 1248 currently (1694) cost 12 or 14 shillings. The discussion of this problem was particularly important for the church at the time, as a large part of its income, and especially that of the churchmen personally, was based on rents that had been fixed in monetary units in early feudal times. The problem did not let go of him and was still very topical for him personally insofar as the statutes of his college in Cambridge had stipulated in the old days that a fortune bringing 5 pounds sterling a year excluded the person concerned from fellowship. He therefore deepened his research into the historical development of English coinage and the prices of grain, meat, drink, clothing and wages such as salaries and stipends over six centuries. His specific purpose was to find out whether someone who "today" has an annual income of £6 does not even have as much as someone who had £5 around 1450, when the Kings College Statute was enacted. This was probably the first attempt to measure the purchasing power of money over time by measuring price fluctuations. In 1707, *Fleetwood published* the results of his investigations in his *Chronicon preciosum*.

At the end of the price data, however, we find a table that lists the prices for wheat and malt year by year, from 1646 to 1705.

After this splendid beginning of English statistical historiography on prices and wages in the first half of the 18th century, the focus of this study shifted to France. Two men in particular should be mentioned here: *Nicolas François Dupré de Saint-Maur* (1695-1774) and *Cl. J. Herbert* (1700-1758). *Saint-Maur* worked for many years at the Royal Court of Audit in Paris. He published the following works on the problems of the development of prices and money

"*Essai sur les Monnoies*", Paris 1746, and "*Recherches sur la Valeur des Monnoies, et sur le Prix des Grains, avant et après le Concile de Francfort*", Paris 1762. He also dealt extensively with population statistics and translated *Milton's* "Paradise lost" into French.

Saint-Maur's work was published one year after the second edition of *Fleetwood's* work. Nine years later, in 1755, *Cl. J. Herbert published* his "*Essai sur la Police générale des Grains*". *Herbert* was of course familiar with *Saint-Maur's* work, relied on it and introduced an innovation about which *M. Kuczyński* writes: "It is of particular interest, however, that Herbert does not use Dupré de Saint-Maur's summary of prices by decades. He makes his own grouping, with the express aim of not allowing the years of inflation to sink into the average, but to preserve the possibility that 'the comparison from one inflation to another can be made without further ado'." [15: 520]

In the 19th century, the main interest in long-term statistics for prices and wages going far back into the past moved from France back to England. The leading figure was *Thomas Tooke*, whose monetary theories were discussed in detail by *Marx*, but who is of lasting importance because of his price studies. His great work "*A History of Prices and of the State of the Circulation from 1793-1856*", which appeared in 6 volumes from 1838 to 1857, is the first truly comprehensive history of prices - the last 2 volumes, covering the period from 1848 to 1856, were co-authored by *W. Newmarch*. He was soon followed by *James E. Thorold Rogers* with two magnificent works: "*A History of Agriculture and Prices in England from the Year after the Oxford Parliament (1259) to the Commencement of the Continental War [222] (1793)*", compiled entirely from original and contemporaneous records", 7 volumes, Oxford 1866-1902, and "*Six Centuries of Work and Wages*", 2 volumes, London 1884.

It is fair to say that with the work of *Fleetwood*, *Saint-Maur* and *Herbert*, we are in the pioneering stage of both longer-term price and wage studies and the construction of

of "long series" of economic history statistics. The work of *Tooke* and *Rogers* lead us into the early stages of maturity. Great progress has been made since then.

The most detailed price statistics in the 19th and 20th centuries were calculated in the USA by a whole series of competent authors - here only *W. C. Mitchell* should be mentioned - in Germany, the Prussian Statistical Office should be emphasized above all, which excellently promoted the individual work of its officials.

As far as long-term wage statistics are concerned, the works of *A. G. Bowley* and *G. N. Wood* in England, of *R. Kuczynski* for Germany, of *Fr. Simiand* in France and of the U. S. Bureau of Labor Statistics for the USA should be mentioned. The best collection of statistics on wages for the most important imperialist countries over the last 200 years, supplemented by our own calculations, can be found in the 40 volumes of the "History of the Condition of Labor under Capitalism" by *J. Kuczynski*.

Industrial history

Only a few years after *Fleetwood's* price and wage statistics, the first history of an industry that I have found also appeared: *J. Blanch*, "Speculum Commercii: or, The History of our Golden Fleece", London 1716. It is one of the hundreds, even thousands, of small writings produced by mercantilism in the 17th and 18th centuries, in which a wealth of data useful for an economic history can be found for contemporary economic history. The best collection of such writings is to be found in the British Museum, and the entire literature has not yet been sufficiently evaluated. Only in the field of the situation of workers has *E. S. Furniss* in "The Position of the Laborer in a system of Nationalism. A study in the labor theories of the later English mercantilists", Boston/New York 1920, took a first serious step. The first more detailed but still completely inadequate bibliography of such writings - when it was written, the author was refused entry to both Britain and the USA, where the best collections are - was given in volume 26 of *Kuczynski's* "Geschichte der Lage der Arbeiter".

Blanch's history of wool begins in the earliest times, when the "Phoenicians" discovered England, and leads up to the present day. If you read the book more closely, you will find more information about the economic policy regarding wool and woollen cloth production than about the production itself. Overall, however, the 109-page booklet is probably the first major study of its kind, and we can regard it as the first study of an industry or economic policy towards an industry that goes far back into the past.

Clapham mentions "Chronicon rusticum-commerciale; or Memoirs of Wool" by *John Smith* (London 1747) as the first industrial history. Since then, a wealth of histories of the various branches of the textile industry in Great Britain have appeared. Milestones were *P. Colquhoun's* "An Account of Facts relating to the Rise and Progress of the Cotton Manufacture in Great Britain", London 1789, *E. Baines'* "A History of the Cotton Manufacture in Great Britain; with a Notice of its Early History in the East and in all Quarters of the Globe", London 1835 - probably the first attempt to internationalize the history of a single industry - *G. J. French's* "Life and Times of Samuel Crompton", London 1859 - probably the first detailed biography [223] of a great inventor of a mechanized industry - up to the work of *A. P. Wadsworth* and *Julia de Lacy Mann*, "The Cotton Trade and Industrial Lancashire 1600-1780", Manchester 1931.

It is only natural that no country between 1750 and 1850 has such a rich literature for individual industries as England. Nor is it surprising that no country in this period has such a rich literature on the textile industry. France, for example, probably achieved more in the field of the study of heavy industry - think of the works of Baron *J. J. Baude* ("De l'Enquête sur les Fers", Paris 1829), *E. Flach* ("De l'Industrie du Fer en France considérée par rapport aux entraves qu'elle éprouve dans le développement de ses moyens de production", 1836) and *A. M. Huiroon de Villefosse* (especially his contemporary history: "Recherches Statistiques sur l'Etat actuel des Usines à Fer de la France en l'année 1825", Paris 1828); just as in Germany, people were also intensively involved with the corresponding

The two-volume work by *A. A. Perdonnet*, "Voyage métallurgique en Angleterre", Paris 1837, is a reminder of the situation in England. The German economic history of individual industries at this time was naturally very locally oriented, concentrating on the many countries into which Germany was divided. Rare in the early German economic history of individual industries is a work such as *P. Mischler's* "Das deutsche Eisenhüttengewerbe vom Standpunkte der Staatswirtschaft", 2 volumes, Stuttgart 1852-1854; more typical is *E. Engel*, "Die Baumwollen-Spinnerei im Königreich Sachsen seit Anfang dieses Jahrhunderts bis auf die neueste Zeit", Dresden 1856.

In the last hundred years, the history of individual industries has spread everywhere, and a wealth of solid works has been written by numerous capable economic historians, but none that stands out, like some works of political history.

From the economic history of individual industries since the publication of *Blanch's* "Golden Fleece", many paths have led in many directions: to the history of industry as a whole and to the history of the economy of a country as well as to the comparative economic history of several countries; to the history of other economic sectors, such as trade, finance and agriculture; to local history; to colonial history; to the economic history of individual social orders; to the economic history of individual classes and strata.

All countries have been involved in the development of economic history since the middle of the 19th century, some, such as Russia and Japan, have been delayed in accordance with the development of their economies, but have then excelled in individual areas, such as Tsarist Russia with *J. Loutchisky* and *Paul Vinogradov* in the field of agricultural history.

History of the situation of working people

In this field, too, England made the first great achievement, namely with the work of *Sir Frederick Eden*, "The State of the Poor: or, an History of the Labouring Classes in England, from the Conquest to the Present Period", 3 volumes, London 1797. *Engels* was probably not yet familiar with it when he wrote his work "The Condition of the Working Classes in England", otherwise he would certainly have mentioned it. *Marx* often quoted it in "Capital" and thought highly of it. In fact, *Eden* was a great investigator of the situation of the working people and one of the first to work with the questionnaire method: he collected his material partly after drawing up a questionnaire, which was distributed with the help of an employee who traveled around with the sheet, and he also [224] went to some places himself, and also arranged for pastors and other "well-respected people" to collect material for him. In this way he collected information on the food, clothing, heating and housing conditions of workers, their wages, number of children, workhouses, etc. for a considerable part of England. His family budgets are still quoted today - for example in *G. D. H. Coles* and *R. Postgate's* book "The Common People 1746-1938", London 1938, or in *J. Kuczynski's* "History of the Condition of the Workers", Volume 23. This work was so great in its methodology that it has served as a model for many others.

A little more than a generation later, one splendid pamphlet after another on the situation of the workers followed on an international level, in England *Peter Gaskell's* "The Manufacturing Population in England; its Moral, Social and Physical Conditions, and the Changes which have arisen from the Use of Steam Machinery", London 1833, in France *Eugène Buret's* "La Misère des Classes Laborieuses en France et en Angleterre", Paris 1840, hundreds of pamphlets written by progressive citizens in Germany in the 1930s and 1940s (cf. the bibliography in volume 9 of *Kuczynski's*

"Geschichte der Lage der Arbeiter") and then in 1845 by *Friedrich Engels* "Die Lage der arbeitenden Klasse in England", with the subheading "nach eigener Anschauung und authentischen Quellen".

Engels' work caused a great sensation in Germany and was also discussed in leading organs of the ruling semi-feudal class, which was anti-industrial and used the situation of the workers to reproach the industrial bourgeoisie, just as the bourgeoisie blamed the ruling semi-feudal class for the situation. It has remained a classic work of economic history to this day, partly because of the magnificent composition of the material, but above all because of the author's firm class standpoint.

Marx's "Capital" must be seen as a direct successor, albeit of a completely different nature, a work whose economic-historical significance is wrongly overlooked in the eyes of so many readers behind its political-economic explanations. And yet it is the basis of all analyses of the situation of workers' history under capitalism in general and especially, of course, in England.

These two works, as well as the "Anti-Dühring" and many other works by *Marx* and *Engels*, are exemplary for all future economic historiography through their methodology of historical materialism, which enables us to penetrate to the core of economic history, to understand the history of the economy logically and historically.

Between *Engels'* early work and *Marx's* "Capital" lies a work of bourgeois description of the situation of the workers, which is not without significance: "Les Ouvriers Européens. Études sur les travaux, la vie domestique et la condition morale des populations ouvrières de l'Europe, précédées d'un exposé de la méthode d'observation" by *Frédéric Le Play* (1806-1882), which appeared in 1855 and again in 6 volumes in 1877/79. *Le Play's* strength lies in his meticulous description of individual working-class households, the exact "menu" at each meal, the contents of the wardrobe, etc. In addition to *Le Play's* work, another Frenchman, *Pierre Émile Levasseur* (1828-1911), should be mentioned in the same period: "Histoire des Classes Ouvrières en France depuis la conquête de Jules Caesar jusqu' à la Revolution", 2 volumes, Paris 1859, with a two-volume continuation from 1789 to the present day, Paris 1867. The period covered by the two works alone is extraordinary. In fact, after *Eden's* work, it is probably the first of its kind, which has only found a successor in our time in the four-volume collective work "Histoire générale du Travail", Paris 1965, produced under the direction of *Louis-Henri Parias*, whereby the latter work attempts to cover the entire history of work (not just of workers!) on a global scale. Of course, *Le Vasseur's* work is outdated in many respects, and yet this bold attempt should be acknowledged in a history of economic historiography.

And alongside *Levasseur's* work, which to a certain extent covers the history of the situation of the working class of an entire country over almost two millennia, there are - and this shows the whole range of such studies in the 19th century - two unique local studies, both relating to London: *H. Mayhews* (1812-1887) "London Labour and the London Poor", 3 volumes, 1851, 4 volumes, 1861/62, and under the direction of *Charles Booth* (1840-1916) the work on the situation of the working class in London, which appeared from 1889 to 1891 and comprises 17 volumes.

Finally, for the 19th century, it is worth remembering a man who had a decisive influence on the study and writing of the history of the situation of workers: the American *Carroll Davidson Wright* (1840-1909). *Wright* headed the Massachusetts Bureau of Statistics of Labor from 1873 to 1885 and was United States Commissioner of Labor from 1885 to 1905. Thanks to him, his methodological inventiveness and his endless zeal, as well as the tradition he created, the USA has had the best official statistics on the situation of workers in the world for a hundred years, right up to the present day. When the *Avelings* visited the USA, they were very impressed by his achievements.

If the greatest economic historians of the 19th century were *Marx* and *Engels*, generally and specifically in the study of the situation of the working people, we can say the same for the 20th century of the greatest disciple of *Marx* and *Engels* and the continuator of their work, *V. I. Lenin*. Two of his works are of particular importance for economic historiography: "The Development of Capitalism in Russia" and "Imperialism as the Highest Stage of Capitalism". No economic history of the capitalist world in the 20th century of any value can be written without reference to Lenin's "Imperialism".

Apart from that, the 20th century brought a wealth of proper, diligent research results on the situation of the workers, both from the bourgeois side and from the Marxist side, the former often far more thorough in their search for and processing of material, the latter always far deeper in the

Insight. Above all, the quantitative side of the studies was developed further, and at the same time micro-studies and international comparisons were carried out in increasing numbers. As a scientific curiosity, the work of the *Kuczynskis* should be mentioned, of whom René (1876-1947) studied the situation of workers (as contemporary history and historically) from 1899 to 1926 and his son Jürgen from 1926 to 1968 continuously, as a kind of scientific life's work. The latter finally summarized his work in a 40-volume work on the situation of workers in the leading capitalist countries from the end of the feudal era to the present day. In the seventy years or so that they were active in this field, the *Kuczynskis* wrote over a hundred books and pamphlets and well over a thousand articles on the situation of the workers. [226]

1.5.1.4. The German Historical School

There is a country that at times had a global influence in the field of economic history and developed a school of economic history that, out of a complete misunderstanding of how scientific work should proceed, achieved extraordinary accomplishments in the field of economic history by mediocre scholars and not least by doctoral students. And this country is Germany between 1860 and 1910, but the school of economic history is the so-called historical school of economics from *Roscher* to *Schmoller*. It deserves a special chapter in any history of economic historiography, not least to show how unevenly and along how crooked paths a science can develop.

Schmoller rightly divided the Historical School into the older and the younger. *Wilhelm Roscher* is considered the head of the older school, *Gustav Schmoller* the head of the younger.

Roscher, Hildebrand, Knies

In 1843, *Wilhelm Roscher* (1817-1894) published the school's programmatic treatise "Grundriß zu Vorlesungen über die Staatswirtschaft nach geschichtlicher Methode". With this method, he wanted to create something similar to "the Savigny-Eichhorn method for jurisprudence" for political economy or, in a broader sense, for the "state economy", as he put it. The historical school could have had great significance for science as an overall social direction if a number of men educated in the philosophy of science had stood alongside a few important men such as *Savigny*, *Jacob Grimm* and *G. L. Maurer*. When *Marx* said of the historical school of law: "The historical school has made the study of sources its shiboleth, it has increased its love of sources to the extreme that it seems to the skipper to be sailing not on the stream but on its source" [MEW 1: 78], we can say that the historical school of economic science has drowned in its source over the course of time.

However, the older part of the historical school is still initially concerned with the establishment of principles, of methodological doctrines, which it basically does not follow. *Roscher* somehow adheres to the principles of classical political economy and refuses to stand in opposition to *Ricardo*. Basically, *Roscher* only wishes for greater consideration of economic history and the history of political economy doctrines in the economic sciences. The two other well-known representatives of the older historical school, *Bruno Hildebrand* (1812-1878) and *Karl Knies* (1821-1898), basically did not proceed differently from *Roscher* as far as the realization of the methodology was concerned. One has to agree with *Paul Mombert* when he remarks in his "History of National Economics": "The achievements of this older historical school lie entirely in the methodological field. *Roscher* applied the historical method only inadequately in his major works, *Hildebrand* hardly achieved any major positive accomplishments at all, and *Knies'* great, remarkable work on money and credit is only very loosely connected with the problems of the historical method in its entire structure." [12: 471] Indeed, one must basically ask oneself whether, contrary to previous custom, one should not begin the historical school with the younger one. [227]

Schmoller, Brentano, Books

Under the leadership of *Schmoller* (1838-1917), the members of the younger historical school took a completely different approach. They referred less to the "historical age" with *Savigny* and *Jacob Grimm*, they acted in accordance with the instructions of the older school, which had hitherto remained on paper, exaggerating them in theory and completely ruining political economy in the process, while at the same time leading economic history to a completely one-sided, but nevertheless flourishing development - one of the most astonishing phenomena in the history of social science - but no more astonishing than Lenin's statement: "*Not a single one* of these professors, who in specialized fields .. who can produce the most valuable work in specialized fields, *must not be believed a single word* as soon as he comes to speak of philosophy." [LW 14: 347] The most valuable works in specialized fields (!) - here in the field of economic history. *Schmoller's* works on political economy are in part below the level of a talented doctoral student of his time, and his studies on economic history are still the basis of many works today. In his view, all political economy before him, no matter how talented its representatives, was bound to fail because economic history was still insufficiently developed. When his "Grundriß der All- gemeinen Volkswirtschaftslehre" was finally published, the 62-year-old *Schmoller* apologized to a certain extent for the fact that he wanted to process almost 40 years of economic history research into a theory. "I did not decide on this publication lightly, I was almost forced into it by external pressures. In my younger years I was inspired by the conviction that the first task of today's national economists was to make our science equal to the others through scholarly specialized research, that only after a human age of such work would the encyclopedic summary be worthwhile again. Long before Schönberg's Handbuch der politischen Ökonomie appeared, my dear friend and publisher, Carl Geibel, had asked me to take the lead in such an undertaking. I had flatly refused at the time, because in my opinion, something like this would only be appropriate in 10-20 years, after intensive scholarly work, such as most of the scientific national economists who came onto the scene in Germany from 1860-80." [18: V] And in the preface to the second volume it says: "I wanted to free economics from false abstractions through exact historical, statistical, economic research, but at the same time always remain a generalizing state and economic theorist to the extent that I am convinced we already have solid ground under our feet today. Where this seems to me to be lacking, I have preferred to describe only the facts in my outline and to indicate some developmental tendencies rather than to build up airy theories that are not in touch with reality and soon collapse again like houses of cards. As incomplete as my outline may remain, as little as it will satisfy theoretical national economists as well as historians proper, the attempt at such general summaries is not superfluous and not unfruitful. It had to be undertaken by an economic historian who has always felt it to be a false reproach that he strives only for description and not for general knowledge of the laws of economic life. Only with such an account, drawn from the whole, can the greater purposes of all scientific knowledge be served." [18: IV] Only those who know the totality of economic history can do political economy - a statement in which lies a whole bag of truths ... if one is driven by the constant striving for generalization. The younger historical school, however, not least *Schmoller*, has lived happily for decades, without striving for generalization, in an environment of nothing but facts and connections of the third degree. But she described this environment excellently.

The first economic history book published under *Schmoller's* name was entitled: "Zur Geschichte der deutschen Kleingewerbe im 19. Jahrhundert. Stat. und nationalök. *Mehring* called it a work of "lasting value" - as, incidentally, did the book on the English trade unions by *Schmoller's* colleague at the head of the younger historical school, *Lujo Brentano*, which was published almost at the same time. When Brentano held the professorship for political science in Strasbourg for ten years (1872-1882), he wrote a series of interesting works on

Strasbourg and its guilds. Of particular importance was also his involvement in the research he initiated on Prussian economic history in the 18th century, which was taken into his care by the Academy. Not that we can in any way agree with his enthusiasm for the economic and social policies of the Prussian kings, but *Schmoller's* research undoubtedly drew our attention to the prehistory of the industrial revolution in Prussia and to the practical history of Prussian cameralism; *Schmoller* also published a wealth of important files and documents from this period, and finally we can also learn a great deal from *Schmoller's* text, from which *Mehring* also quotes. However, *Schmoller* - like *Brentano* - was not only an enthusiastic economic historian who did a lot of useful work, he also inspired many other works and brought them to publication, partly in the "Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft im Deutschen Reich", which he had edited since 1881, but above all in his monograph collection "Staats- und sozialwissenschaftliche Forschungen", of which 189 volumes were published before his death - *Max Sering* was co-editor from the 101st volume onwards. The first volume of this collection was the work of the well-known Austrian economic historian *K. Th. von Inama-Sternegg* on "Die Ausbildung der großen Grundherrschaften in Deutschland während der Karolingerzeit", which appeared in 1878. *Werner Sombart's* early study on "Die römische Campagna" also appeared there. One of the best publications in the series was the work of the Soviet historian *Eugen Tarlé*, "Studies on the History of the Working Class in France during the Revolution", Leipzig 1908, which later became world-famous. *Engels* also appreciated it.

Lujo Brentano (1844-1931) was *Schmoller's* best and arguably most important comrade-in-arms as a representative of the younger historical school, without being recognized as its "official head"; that was *Schmoller*. *Brentano* was one of the most astonishing social scientists of the bourgeoisie in the last third of the 19th and first third of the 20th century: both from a purely scientific and from a general cultural and political point of view. Here we are primarily interested in the economic historian. *Brentano* was theoretically more interested than *Schmoller*, he was not as completely untalented theoretically as *Schmoller*, but his achievements as a political-economic theorist are therefore no less insignificant, even if they are not as childish as *Schmoller's*. As an economic historian, *Brentano* was more interested in economics than *Schmoller*. As an economic theorist, his vision was much broader than *Schmoller's*. He was probably the first to give a lecture on general economic history, which ultimately encompassed the entire history of the world economy. Unfortunately, he never published it in print. *Brentano* only published a few excerpts, individual chapters - such as a brochure on "Die byzantinische Volkswirtschaft", a volume "Das Wirtschaftsleben der antiken Welt" and a book "Der wirtschaftende Mensch in der Geschichte" with the following works, some of which had already been published individually and some of which had been bundled together: [229]

1. classical economics. 2. ethics and economics in history. 3. the economic teachings of Christian antiquity. 4. the church and the development towards freedom. 5. the genealogy of attacks on property. 6. the beginnings of modern capitalism. 7. the concept and transformations of economic unity. 8. the fourth crusade. 9. trade and capitalism. 10. puritanism and capitalism. 11. Judaism and capitalism.

One immediately recognizes the extraordinary breadth of *Brentano's* interests, the breadth of his view of economic history.

In his early years, he was particularly interested in the English labour movement, especially the English trade unions and the medieval guilds, which he saw as protective organizations for the oppressed classes.

Just as he was interested in the English working class at the beginning of his work, in his old age he devoted his energies to an economic history of England from its beginnings to the present day. He published the first volume in 1927 at the age of 83, the fourth (III. 2) in 1929, altogether a work of over 2,000 pages.

To this end, like *Schmoller*, he published a collection of monographs, "Münchener

Volkswirtschaftliche Studien" (together with his student *Walther Lotz*), in which in the years 1893-1921

published 144 volumes after he had published 6 volumes together with *G. Fr. Knapp* from 1886 to 1888.

"Abhandlungen aus dem Staatswissenschaftlichen Seminar zu Straßburg i. E.". Among the 144 volumes of the large collection of monographs are many that can still be read with benefit today. *Lenin* used, for example, the 1904 work by *H. G. Heymann* on "Die gemischten Werke im deutschen Großeisengewerbe" in "Imperialism", and *Th. Vogelstein*, from whom *Lenin* quotes two works, published his dissertation in this series, as did *R. Kuczynski's* doctoral thesis "Der Zug nach der Stadt", which was expanded into a book. The most important Japanese economic historian in the first third of our century, *Tokuzo Fukuda*, appears with a book on "Social and Economic Development in Japan".

If one takes the two collections of *Schmoller* and *Brentano* together, one obtains well over 300 monographs by two or even three generations of students of the historical school of economics.

Just as the older school of historians had three heads, the younger one can perhaps count two and one minor head - the latter being *Karl Bücher* (1847-1930), much less prominent in public than the other two, but an original researcher. In his old age, he collected the economic history treatises he considered most important in one volume [3], which contains the following sections:

On Greek economic history / The status of unfree workers 143-129 BC / The Diocletianic tax regulations of 301 / The workers' question in the Middle Ages / The women's question in the Middle Ages / Two medieval tax regulations / The public budget of the city of Frankfurt in the Middle Ages / The professions of the city of Frankfurt a. M. in the Middle Ages / The municipal civil service in the Middle Ages / Medieval craft associations / Frankfurt bookbinding orders from the XVIth to the XIXth century.

There is also a wealth of works on contemporary problems. Special mention should be made of *Bücher's* book "Arbeit und Rhythmus" (Work and Rhythm), which first appeared in 1896 and subsequently went through several editions. In this book, *Bücher* examines the connections between the process of work and its rhythm or the work songs that accompany the work, i.e. a kind of work culture that [230] both makes work easier and gives pleasure. An appendix to the book is entitled: "Work Songs of the Negroes in the United States of America".

Let us look back again at the two schools of historians: The older developed a false program in justified reaction to theoretical gimmicks of the vulgar dogmatic successors of *Smith* and *Ricardo* and directed this, in fact still falsely, against *Smith* and *Ricardo* instead of against their vulgar offspring. The younger school radically carried out this false program to the greatest detriment of political economy and to considerable benefit for specialized work, especially of a descriptive nature, in the field of economic history.

The Historical School not only had a major influence on the development of economic history in Germany, but also in numerous other countries, particularly in the USA.

Such was the influence of the historical school in the USA that when the American Economic Association was founded in 1885, its statutes contained formulations in favor of the historical school's methodology and against "abstract speculation". Paragraph 2 of the statutes states: "We believe that social economics as a science is still in its early stages of development. With all due respect for the work of the earlier national economists, we do not attach as much importance to speculation as to the historical and statistical study of the present conditions of economic life, in order to further promote scientific development in a peaceful manner" (quoted from the translation in [23: 67]). Indeed, numerous later leading economists from the USA came to Germany as students as well as older ones in the last third of the 19th century and came under the influence of the younger historical school.

Gide and *Rist* wrote about the influence of the Historical School in England and France in their "Geschichte der Volkswirtschaftlichen Lehrmeinungen": "In England, this stronghold of Ricardo's economic theory, the influence of the historical school after 1870 is very noticeable. The same methodological discussions that preoccupy German economics also occur here. In his book 'The character and logical method of political economy', which was republished in 1875, Cairnes emphatically emphasized the justification of deduction as applied by the old national economics. But in 1879 Cliffe Leslie answered him in his 'Essays on political and moral Philosophy' by bringing all the weapons of the German historical school into the field against the classical methods. Induction as opposed to deduction, the need to relate economics to the other social sciences, the relativity of economic laws, history as a method of interpreting economic facts - all these ideas are impressively developed by the English writer. At the same time, Arnold Toynbee put forward analogous ideas, albeit with greater moderation, in his treatises on the 'industrial revolution'. He recognized deduction as necessary in the study of economics, but he saw history and observation as the means of giving life and practical scope to economic theory, the lack of which was increasingly noticeable in Ricardo's theories. According to him, the cause of social reform was to benefit greatly from the new methods ... From then on, economic history, the observation of institutions and the study of social classes took an ever-increasing place in the work of economists in England. Important works were produced in each of these fields of thought: The Growth of English Industry and Commerce, by Cunnigham; the History and Economic Doctrines of the Middle [231] Ages, by Ashley; the History of Trade Unionism and Industrial Democracy, by Mr. and Mrs. Sydney Webb; Life and Labor of the People, by Booth, are as many proofs of the profound influence which that movement of ideas has exercised on English national economists.

In France, the historical school did not have the same success, but the need it met was felt no less strongly. Here in France, no real school of historical national economists was founded." However, "historians by profession became more and more interested in the problems of economic history and thus provided a very valuable aid to the studies of political economists" [4: 425 f.].

It will be understood that the Historical School must occupy a special chapter in any history of the social sciences. Not, of course, primarily because of the extraordinary discrepancy between what Lenin would call its philosophy and its valuable achievements in specialized fields, but partly because of these very valuable achievements and partly because of the great international influence it has had. None of the members of the older or younger school had any importance as political economists, and *Schmoller* always saw himself as an economic historian, even when he lectured on political economy. All of them helped economic history to achieve a high reputation in academic circles in Germany and elsewhere where they were influential.

1.5.1.5. More recent trends in the 20th century.

As a kind of reaction to the "pure empiricism" of the historical school on the one hand and the rapid spread of Marxism on the other, one has to regard the attempts of an emphasized philosophical penetration of bourgeois economic historiography in the first two decades of the new century, which, however, were not accompanied by much success. While in Germany *Max Weber* still held the view that it would be wrong to give ideational or economic factors a one-sided decisive influence, *Werner Sombart*, with his numerous works on the history of capitalism and the labor movement, increasingly became a reactionary idealist. Most economic historians, however, remain methodologically untheoretical materialists, of course predominantly on the side of the ruling class, becoming more and more conscious apologists for capital, especially monopoly capital. This does not mean, however, that men like *J. N. Clapham* and *T. S. Ashton* in England, *W. C. Mitchell* and *H. U. Faulkner* in the USA, *Fr.*

Simiand and *Henri Sée* in France, *H. Pirenne* in Belgium or *Posthumus* in Holland, the Italian *G. Prato*, the Romanian *G. J. Bratianu* or the Russian *J. Loutchisky* did not produce world-famous and world-renowned works of value. But in place of each name, one could have put half a dozen others for most countries.

To these names of capable, in some ways limited, economic historians must be added several economic history enterprises of a similar character. Among them, two in particular deserve mention: the multi-volume "Cambridge Economic History of Europe", which is already in its second edition, and the "Handbuch der Wirtschaftsgeschichte" edited by *G. Brodnitz*, in which various authors dealt with the economic history of a country in one or two volumes each and a general volume on the "Middle Ages" appeared.

However, despite the failure to consciously infuse bourgeois economic history with philosophy - for example with doctrines of the [232] "spirit in the economy", which is supposed to be the motor of development - and despite the continuation of the historical school in this or that form, the emergence of new directions is of real significance. Four of these are particularly noteworthy.

Firstly: Starting in France - partly under the influence of *Émile Durkheim* and *Max Weber* - a tendency to allow economic history to merge into a general social or cultural history. *Marc Bloch* and *Lucien Febvre* were leaders in this direction, and *Fernand Braudel* still is today. It cannot be doubted that this direction has uncovered many interesting connections between economic and general history, without, however, being able to properly analyze the causal connections in general, as it ultimately lacks a comprehensive and deeply penetrating theory. It should also be borne in mind that these scholars were only following in the footsteps of the French and Scots of the second half of the 18th century, albeit at a higher level, often influenced by Marxism.

Secondly, starting from the USA, under the direct influence of big business, the development of corporate history, the first beginnings of which can be found in the work of *R. Ehrenberg* in Germany at the beginning of the century. The center of this research was and is Harvard University. The initiators of this "new direction" were *N. S. B. Gras* and *Edwin F. Gay*, later continued by *Arthur H. Cole*, *Thomas C. Cochran* and *Fritz Redlich*, all from Harvard. As far as other countries are concerned, this line of research was taken up above all in the Federal Republic of Germany. It is characteristic that the greater the anonymity of monopoly capital, the greater the cult of personality in the world of capital. This applies in particular to the so-called commemorative or anniversary publications of commercial enterprises.

On the Marxist side, this direction corresponds to factory history, in which it is not the entrepreneur who plays the decisive role, as in the history of the entrepreneur, but the workers. Factory history was originally inspired by *M. Gorky*, but lost much of its importance in the Soviet Union. It was then revived in the GDR and is now flourishing in all socialist countries.

Thirdly, based on intensive theoretical discussions, initially in England and France, and on a number of empirical historical works, among which *Max Wirth's* "History of Trade Crises" (1858) is particularly noteworthy, the 20th century saw the development of so-called business cycle research, the analysis of the cyclical movements of such important economic factors as production, investment, prices, income, money circulation, etc. in the present, near and distant past, due to the urgent need of the bourgeoisie to "finally get to grips with the wild economic fluctuations". Probably no other branch of economic history experienced such a boom in the years between the two world wars, including the creation of numerous institutes for its operation, as business cycle research, and even after the Second World War, sometimes slightly modified to growth research in the past and present, interest in this part of economic history remained.

Fourthly, the "New Economic History", represented above all by *R. W. Fogel*, *J. R. Meyer*, *A. H. Conrad* and *D. C. North*, was the starting point for corporate research in the USA. Their original claim is that mathematical-statistical methods should be used to investigate what would have happened if certain circumstances had been different, e.g. the development in the USA in the 18th century if they had freed themselves 25 years earlier, or the development of the railroad system if the automobile had not been developed. Such investigations are necessary in order to prove causal connections that one believes to see, e.g. that the development of automobile [233] traffic would really have brought down the railroad system. This is not a useless idea in itself, as long as it is not exaggerated in order to prove a self-evident fact through the lengthy construction of models that can only be vaguely determined.

A fully developed economic historiography - which truly reproduces the economy as it has developed over the course of history up to the present day - could only be established with the political-economic and general social discoveries of *Marx* and *Engels*. Strangely enough, however, after *Lenin's* great early works as late as the 19th century, the Marxists of the last decades before the October Revolution were relatively little interested in economic history - even in German Social Democracy. There was only one outstanding "professional" economic historian among them, not surprisingly - a member of the Bolshevik Party, *Mikhail Nikolaevich Pokrovsky*. Of course, there are interesting passages on economic history in *Mehring* and *Kautsky*; we must also not forget that *N. Bukharin's* "Imperialism and World Economy", later published with a foreword by *Lenin*, was written two years before the revolution. However, Marxist economic history only really blossomed after the victory of the October Revolution.

Of course, *Lenin's* "Imperialism", the basis of all Marxist economic historiography on 20th century capitalism, was and is unique in its importance and influence. The work is equally great as a theoretical and as an empirically analyzing historical work. Just as in the corresponding writings of *Marx* and *Engels*, the absolute fusion of political ecology and economic history is astonishing, so that, like their works, this is also a methodological model of economic research.

However, the heyday of economic history research, which then began with the October Revolution, did not last long. It ended, with a few exceptions such as *S. G. Strumilin* and *E. Varga*, at the beginning of the 1930s, shortly after the discussion about the "Asian mode of production" had been broken off. Even in the other Marxist parties, it was not possible to speak of any noteworthy achievements in the field of economic history until the end of the Second World War - unless, for lack of other works, *Heinrich Cunow's* four-handed "General Economic History" and *J. Kuczynski's* five-volume "Short History of Labor Conditions under Industrial Capitalism".

After the Second World War and with the emergence of new socialist societies, an astonishing flowering of economic history began in the world of socialism, which was quickly recognized in the world of capital - with *L. A. Mendelson* and *A. I. Njeussychin* in the Soviet Union, *Witold Kula* in Poland, *Eric Molnár*, *S. P. Pach*, *I. Berend* and *G. Ránki* in Hungary, *A. Klima* in the ČSSR, *J. Nathan* in Bulgaria, *Chung-Ping Yen* in China, *W. Jonas*, *J. Kuczynski* and *H. Mottek* in the German Democratic Republic - to name but a few.

Outside the socialist countries, Marxist economic historians were also active. Just think of the discussion on the transition from feudalism to capitalism, in which *M. Dobb*, *Chr. Hill* and *A. L. Morton* from England, *P. Sweezy* from the USA, *Takahashi* from Japan and Marxist historians from Italy and France took part; think also of the so interesting works of *E. Hobsbawm* on the situation of workers in England during the industrial revolution, *Emilio Sereni's* agricultural studies or the stimulating work of the French economic historians *J. Chesneaux*, *M. Godelier* and *J. Suret-Canale* on the Asian mode of production.

[234] The specialized flourishing of the economic history of antiquity with the works of *I. M. Djakonov* in the Soviet Union, *Ch. Welskopf* in the GDR, *M. I. Finley* in England and many others is also astonishing.

Today, economic history is taught at almost all universities in Europe, North America, Japan and Australia, and there are research institutes for economic history in many countries - the largest of which is at the GDR Academy of Sciences.

Some journals or periodicals specifically for economic history are also published - but economic history is usually only represented in journals dedicated to more general topics.

In the following, we will take a closer look at two new phenomena: the development of economic history and the so-called New Economic History.

Economic history

The best economic historian of the early period was *Max Wirth* (1822-1900), whose "History of Commercial Crises", first published in 1858, gives a lively but rather untheoretical account of crisis history. In contrast to *Wirth*, *Clément Juglar* (1819-1905) not only wrote a broad history of crises in his book "Des Crises Commerciales et de leur retour périodique en France, en Angleterre et aux Etats-Unis" (Paris 1862), but also prefaced it with a theoretical section. However, although the first part of *Juglar's* work is entitled "Théorie des Crises Commerciales", he basically dispenses with any theory, but rather explains: Il y a un ensemble de circonstances, une organization, pour ainsi dire ... "There is an interplay, a conglomerate of circumstances, an organization, so to speak, which needs a certain time to develop, to give impetus to business and to increase the wealth of the country by spreading prosperity and prosperity everywhere. This prosperity itself eventually anesthetizes and allows the limits of prudence to be exceeded. Under the influence of the rise in prices, trade and speculation have assumed unforeseeable dimensions, until suddenly the mechanism of exchange comes to a standstill." [9: 56] From this interplay of a conglomerate of causes, it is not too far to the thesis of *W. C. Mitchell*, the most zealous "statistician of crises" in our century: If one examines the crises in detail, one finds that they all take different courses and have different causes, so that it is impossible to develop a theory of crises.

While *Wirth* and *Juglar* were working on the first version of their works, *Marx* and *Engels* wrote a unique history of the cyclical economic movement of their time in the form of an exchange of letters. In other words, they gave us a running account of the business cycle, theoretically penetrating and at the same time going into numerous daily details, the like of which we do not have again in all literature.

After *Juglar*, a few other bourgeois economic historians of the cyclical movement should be mentioned who can still be read with benefit today and are still quoted by Marxists, even if they are theoretically absurd. Among them, the two Russians *Mentor Bouniatian* and *M. Tugan-Baranowski*, the French *Albert Aftalion* and *Jean Lescure* and the American *W. C. Mitchell*, who all published excellent historical "special works" in this field before the First World War, should be mentioned above all. Between the two world wars, there was an astonishing institutionalization of business cycle research. As early as 1917, a business cycle research institute was established at Harvard University in the USA under the direction of *W. M. Persons* and *Ch.*

J. Bullock, which was followed by others in Stockholm in 1922, in [235] London and Paris in 1923, in Berlin in 1925 and in Rome in 1926. The most outstanding research was undertaken in the Soviet Union at the beginning of the 1920s. Names such as *Cuprov*, *Slucki*, *Kondratev*, *Četverikov*, *Ignat'ev*, *Vain-stein* quickly became internationally known. The most outstanding among them was *Eugen Varga*, who published quarterly world economic surveys from 1922 until the Second World War, but also worked historically. *Varga's* economic analyses, which formed part of his overall analyses

of the capitalist economy also had great significance for the elaboration of the strategy and tactics of the world class struggle by the III. International and for the policy of the Soviet Union.

After the Second World War, if we disregard the refinement of methodology, economic research as direct research into contemporary history made no further progress - nowhere. Looking back into the past, a few competent bourgeois books have been published as far as factual research is concerned, but their value is severely impaired by their poor theoretical level. On the Marxist side, the great three-volume "Theory and History of Economic Crises and Cycles", Moscow 1959-1964, by

L. A. Mendelson, the three-volume history of crises in Germany (vols. 11, 12, 15 of "Geschichte der Lage der Arbeiter unter dem Kapitalismus") by *J. Kuczynski* and *Fred Oelssner's* "Die Wirtschaftskrisen" (only vol. 1 published).

The "New Economic History" or cliometrics

It has been practiced primarily in the USA since the late 1950s and early 1960s. Its main proponents are *A. H. Conrad* and *J. R. Meyer* with their studies of the American slaveholding economy before the Civil War; *R. W. Fogel* with his work on the American railroad system; *D. C. North* above all with his analysis of the factors that contributed to the increase in productivity in maritime shipping.

The theorists of this movement are above all *R. W. Fogel* and *St. L. Engerman*, who also published the most important articles of the representatives of the "New Economic History" with summarizing preliminary remarks under the title "The Reinterpretation of American Economic History" in 1971.

Sometimes they see their ancestors in the econometricians, which is why they are sometimes referred to as representatives of econometric economic historiography. This is why *Fogel* and *Engerman* have included articles by *Simon Kuznets* and *Robert E. Gallman*, for example, in their book; both are excellent statistical economic historians who were certainly pleased to see their articles reprinted in this volume; but they are really indistinguishable "philosophically and methodologically" from other statistical economic historians or statisticians working in economic history in the last half century or further back.

What is really new about the "New Economic History" is the construction of counterfactual situations, the construction of conditions that contradict the facts, i.e. "anti-history". In my opinion, this is an extraordinarily fruitful idea, of which the authors rightly say that they have basically only brought it to consciousness, while it has often been practiced unconsciously. In fact, the authors do not go far enough here. If they had studied *Hegel* a little, they would naturally come to the conclusion (which *Hegel* did not express in this way) that all economic history, all history is both factual history and counterfactual history.

[236] According to *Fogel* and *Engerman*, "The old style of economic history is full of veiled counterfactual assertions. They are found in discussions that either assert or deny that tariffs accelerated the growth of factory industry, in essays that claim that slavery slowed the development of the South (the United States - author's note) ... All of these arguments involve comparisons between the factual conditions of the nation and the conditions that would have prevailed in the absence of the factor in question." [27: 15]

That is absolutely right. But quite insufficient. Absolutely every judgment about the importance or non-importance of a historical factor simultaneously states that if this factor had not been present, history would have proceeded differently or not differently. This means that with every judgment we are making counterfactual history, because every judgment in history is a decision about a fact and its opposite or its non-existence. When I say that the invention of the steam engine or the maintenance of consumer goods prices in the GDR is an extraordinary

performance, then of course I also construct at least a very vague counterfactual history, namely what it would have been like if the steam engine had not been invented, if prices had not been maintained, otherwise I cannot grasp the significance of the change in history due to the invention of the steam engine or the significance of the non-change for the worse due to prices not being maintained.

But even if the New Economic Historians did not grasp the full significance of their idea, the fundamental importance of the concept of a counterfactual history, a historiography "opposed" to the facts, it is nevertheless to their credit that they attempted the beginnings of such a detailed, coherent historiography.

Fogel, for example, undertook a counterfactual study of how the USA would have developed if railroads had not been introduced. He tried to calculate how large the national product would have been in 1890 if no railroads had been built. *Peter Temin*, who still appears in *Fogel* and *Engerman's* book as the New Economic Historian, has pointed out in a brilliant little book [19] 50 many weaknesses and deficiencies in the studies of the New Economic Historians and also in *Fogel's* railroad study, so that one must rightly reject their results - *Fogel* thinks, for example, that the non-appearance of railroads would not have made much difference.

But that does not mean that the idea of New Economic Historians is nonsensical. Of course you can't write a coherent counterfactual history. Of course the railroads would have been introduced in the USA, if not around 1830, then perhaps ten years later, of course it would be nonsensical to attempt similar constructions in the field of political history, since such a counterfactual history would have to take far too many factors into account. However, it seems to me not only not nonsensical, but highly fruitful to write a counterfactual history of specific factors, at least over a short period of time, but sometimes also over a longer period. For only through such a history can one illuminate and grasp certain sections of factual history in their full significance.

The following remarks by *D. M. Gwischiani* are extremely interesting in this context. *Gwischiani* in an essay on "Alternatives in Science and Technology and the Role of the Social Sciences": "In analyzing the history of science and technology, scientists sometimes underestimate the possible effects of the psychological phenomenon that an already [237] completed historical process always appears more straightforward than it was in reality, and that, according to the logic of simple retrospection, no 'historical selection points', no alternative paths of development can be demonstrated in this process. The history of science casts a spell over the logicians and historians of science with its logical consistency and indisputable factuality; this makes it difficult for them to recognize once existing, unrealized alternative paths of development of scientific thought and unrealized technical hypotheses (e.g. due to the lack of a social need)." (Quoted from [7: 1248])

And what *Gwischiani* states here for the history of science and technology also applies accordingly to economic history. Both, however, can only be tactical variants for the most part - even if we should not forget that *Marx* posed the alternative to humanity: Forward to socialism or decline into barbarism. However, people will never have the time or inclination to write a counterfactual economic history of the later reality of a socialist world economy.

1.5.1.6. Journals on economic history

Bulletin de l'Association Française des Historiens Economistes (Paris)

Economic History Review (London)

Economisch-historisch Jaarboek (The Hague)

Jahrbuch für Wirtschaftsgeschichte (Berlin, GDR)

Journal of Economic History (New York)

Scandinavian Economic History Review (Stockholm)

The Journal of European Economic History (Rome)

Strongly oriented towards economic history:

Annales Cispadines d'Histoire Sociale (Bologna)

Annales: économies, sociétés, civilisations (Paris)

Beiträge zur Historischen Sozialkunde (Vienna)

Economia e Storia (Rome)

Economy and History (Lund)

Journal of the Social and Economic History Society (Tokyo)

Journal of Social History (Berkeley, Cal.)

Revue d'histoire économique et sociale (Paris)

Roczniki Dziejow Społecznych i Gospodarczych (Poznań)

Vierteljahresschrift für Sozial- und Wirtschaftsgeschichte (Wiesbaden) - This journal, which first appeared in 1893 under the title "Zeitschrift für Sozial- und Wirtschaftsgeschichte", was probably the first academic journal devoted primarily to economic history; among its editors were two socialists, St. Bauer and C. Grünberg.

Journals on sub-areas of economic history should be mentioned:

Agricultural History (Berkeley, Cal.)

Cuadernos de Historia Económica de Cataluña (Barcelona)

Business History Review (Cambridge, Mass.)

Études Rurales (Paris - La Haye)

Explorations in Entrepreneurial History (Cambridge, Mass.)

Textile History (Edington)

The Agricultural History Review (n.d.)

Zeitschrift für Agrargeschichte und Agrarsoziologie (Frankfurt/M.) [238]

Literature:

(see *Kuczynski, J.*: Studien zu einer Geschichte der Gesellschaftswissenschaften. Vol. 8, Berlin 1978): 1. *Bernheim, E.*: Lehrbuch der Historischen Methode und der Geschichtsphilosophie. Leipzig 1908; 2. *Bodin, J.*: Respublica, das ist: Rechtliche und rechte Underweysung, oder eigentlicher Bericht, in welchem ausführlich vermerket wird, wie nicht allein das Regiment wol zu bestellen, sondern auch in allerley Zustand, so wol in Krieg und Widerwertigkeit, als Frieden und Wolstand zu erhalten sei. Mümpelgart 1591; 3. *Bücher, K.*: Beiträge zur Wirtschaftsgeschichte. Tübingen 1922; 4. *Gide, Ch./Rist, Ch.*: Geschichte der volkswirtschaftlichen Lehrmeinungen. Jena 1921; 5. *Goguet, A. Y.*: Untersuchungen von dem Ursprung der Gesetze, Künste und Wissenschaften wie auch ihrem Wachsthum bei den alten Völkern. T. 1, Lemgo 1760; 6. *Grotius, H.*: Drey Bücher vom Recht des Krieges und des Friedens, darin das Recht der Natur und der Völker, wie auch die vornehmsten Sachen desjenigen Rechts, welches von der Regierung eines Staates handelt, erklärt und die Anmerkungen des Verfassers hinzugefüget werden. Vol. 2, Leipzig 1707; 7. *Gwischiani, D. M.*, in: SW/GB 1976, H. 12; 8. *Home, H.*: Versuche über die Geschichte des Menschen. T. 1, Leipzig 1774; 9. *Juglar,*

G.: *Des Crises Commerciales*. 2nd ed., Paris 1889; 10. *Kuczynski, J.*: Die Geschichte der Lage der Arbeiter unter dem Kapitalismus. Vol. 26, Berlin 1965; 11. *Millar, J.*: Vom Ursprung des Unterschieds in den Rangordnungen und Ständen der Gesellschaft. Frankfurt/M. 1967; 12. *Mombert, P.*: Geschichte der Nationalökonomie. Jena 1927; 13. *Montesquieu, Ch. L.*: The Spirit of the Laws. Translated v. A. Fortmann, Leipzig 1891; 14. *Pufendorf, S.*: De jure nature et gentium libri octo. Vol. 1, Oxford/London 1934; 15. *Quesnay, F.*: Ökonomische Schriften. Vol. 1, 2nd half-volume, ed. by M. Kuczynski, Berlin 1971; 16. *Roscher, W.*: Geschichte der National-Oekonomik in Deutschland. Munich/Berlin 1874; 17. *Schelle, G.*: Oeuvres de Turgot. Vol. 1, Paris 1913; 18. *Schmoller, G.*: Grundriß der Allgemeinen Volkswirtschaftslehre. T. 1, Leipzig 1900; 19. *Temin, P.*: Casual Factors in American Economic Growth in the Nineteenth Century. London 1975; 20. *Thucydides*, History of the Peoponnesian War. Leipzig 1961, p. 5 f.; 21. *Turgot, A. R.*: Betrachtungen über die Bildung und die Verteilung des Reichtums. Jena 1924; 22. *Webster, Ch.*: The Great Instauration. London 1975; 23 *Festgabe für Lujo Brentano zum 80. Geburtstag*. Vol. 2, Munich/Leipzig 1925; 24 *The Economic Writings of Sir William Petty*. Vol. 1, Cambridge 1899; 25. *International Encyclopedia of Social Sciences*. Vol. 6, New York 1968; 26. *The Petty Papers*. Vol. 1, London 1927; 27. *The Reinterpretation of American Economic History*. New York/London 1971.

Jürgen Kuczynski

1.5.2. Sources on economic history

Sources are all texts, objects and facts from which we can gain knowledge about the historical process. They include, for example, changes that humans have made to the natural landscape: Work equipment, materials and cultural waste; inscriptions, documents, administrative and procedural records, newspapers, posters, fiction and works of art; maps and cadastres, sound and image carriers, machine-readable data carriers. What constitutes a source in a specific case depends primarily on the research objective and, of course, on which sections of objective reality are reflected by the source and how they are reflected by it. Advances in content and methodological research usually go hand in hand with the use of new or [239] modified evaluation of known source material. There are therefore numerous dialectical connections between the state of research and the source situation. This article provides an overview of the most important source genres for each method of production. At the same time, it illustrates the important fact that the significance of the individual source genres changes with and within each mode of production. Finally, some source genres are summarized and characterized for all social formations, especially those that are easily overlooked by economic historians.

Sources on the economy of prehistoric society are the legacies of both those populations that once lived in prehistoric society (archaeological sources) and those tribes and peoples that were found living in a state of prehistoric society (ethnographic sources). The ethnographic sources are of decisive importance for the study of the prehistoric economy. The sequence of the ethnographic economic stages - lower hunting-gathering economy, higher hunting-gathering-fishing economy, combined plow-farming-livestock breeding, nomadic livestock breeding, plow-farming - could be confirmed in its main features by archaeology.

Archaeological sources are usually easy to date and can therefore be precisely classified in terms of their developmental history. However, they are often torn from their essential functional contexts by a variety of objective (e.g. destruction through soil storage due to natural transience) and subjective factors (selection by prehistoric people, the finder's powers of observation, the thoroughness of the excavations). These functional relationships, the dialectical interplay between productive forces and production relations, can be observed particularly well in living prehistoric tribes and peoples. The disadvantage, however, is that they simultaneously embody conditions of the modern age which do not immediately betray their age in developmental history, and that their culture may have absorbed foreign elements in often long coexistence with socio-economically more advanced peoples. The descriptions by observers from

Class societies (traders, missionaries, colonial officers and officials, etc.) always require source criticism.

The quantity and quality of archaeological sources on prehistory and early history depend on various factors. The durability or perishability of the material (stone, ceramics, wood, metals, leather, textiles, bones), the preservative or destructive effect of soil conditions and climatic factors (e.g. desert sand, bogs, erosion, groundwater conditions), burial customs (inhumation or cremation graves) and later development have led to a differentiated selection according to source types, find areas and historical periods. The current extent of land use and the depth of soil cultivation (agriculture, earthworks) significantly determine the density of finds. However, the different levels of development of archaeological science and the preservation of archaeological monuments in the individual countries are also important.

The quantity of archaeological finds is still small for the earliest epochs; it continued to grow with the development of social production. The most important finds are tools and production sites, work products (utility and luxury goods, weapons and cult objects), food remains (bone finds and grain), settlements (pits, houses, farm buildings), fortifications and cult sites, individual graves and burial grounds. A number of economic-historical statements can be read directly from these finds. (e.g. production methods, manufacturing techniques, construction methods, origin of imported goods).

[240] Archaeological finds are kept in museums. The most important sources of information are their inventory documents, the annual find and excavation reports of the archaeologists in the archaeological journals and the publication (i.e. catalog-like evaluation) of important find complexes and excavations.

However, research can also draw on written sources: travel and campaign descriptions, geographical and ethnographic accounts, works of historiography and numerous individual messages that emerged in class societies from fleeting or intensive contacts with prehistoric and early historical cultures (e.g. Herodotus, Caesar, Tacitus, Ibn Fadlan). This written tradition has retained its high value to this day, as it usually provides information about social phenomena and processes for which the archaeological material fails.

Around the turn of the 4th and 3rd centuries, the first class societies and at the same time the first writing systems emerged in Mesopotamia and on the Nile. The ruling class of the ancient Near East made extensive use of writing in economic life. The written records are important sources for this early period.

First and foremost are the cuneiform texts in the various ancient oriental languages; in addition, there are clay tablets and written sources of other writing systems (not all of which have yet been deciphered). Over the last hundred years, extensive archives have been excavated in royal palaces, governorates and temple administrations: in Mesopotamia and Syria (Nippur, Man, Ebla, Nineveh, Ugarit), Turkey (Boghazköy), Egypt (Tel-el-Amarna) and Crete (Knossos). These archives consist of several hundred up to 50,000 tablets and contain economic contracts of various kinds, inventories (e.g. of storehouses) and cadastral field descriptions, lists of workers, trial records and verdicts, princely and administrative correspondence, field reports, mythical literature and cultic texts. Economic questions dominate, so that we obtain rich information on questions of economic organization and the state of the productive forces, agricultural and industrial production, commodity-money relations, imports, social dependency relations, etc. Collections of laws (e.g. the famous Codex Hammurabi) and many inscriptions provide valuable additional information. However, not all written sources have been processed and evaluated, and new excavations and discoveries are still being made.

The sources of material culture are also of great value for the reconstruction of ancient oriental economic history. The large representative buildings (such as the palaces in the Near

Orient and on Crete, the pyramids, tombs and temples of the gods in Egypt) give an idea of the high degree of social organization and economic achievements. Added to this are the excavations of closed settlements, workshops, sanitary facilities (cesspools) and trade routes, the abundance of commercial products, depictions of working life in pictorial form and statuettes (Egyptian burial objects).

We have a rich source tradition for Greco-Roman antiquity. The volume of written sources alone is huge. And yet this is only a fraction of what was available one and a half and more millennia ago.

Little has survived from the archives of the state authorities and notary's offices, from the correspondence and business documents of merchants and large landowners. However, numerous papyrus documents preserved by the dry desert sands provide a good insight into the economic conditions in Egypt in Hellenistic and Roman times. And the hundreds of thousands of ancient inscriptions reflect a wide range of social and personal life in their content.

[241] In this situation of tradition, literature is of particular importance. The surviving writings on agriculture (Cato, Varro, Columella), technology (Heron, Frontinus), architecture (Vitruvius) and land surveying are remarkable achievements of their time. Obviously, hardly any special literature was produced for other economic branches.

The works of philosophers, rhetoricians, historians and geographers inform us about economic processes and facts, about approaches to economic theory and about relations with other peoples outside the ancient class society. The high point of legal literature is the late codifications under Emperor Justinian (6th century), which adopted a large number of earlier legal norms: "The first world law of a commodity-producing society

... with its unsurpassably sharp elaboration of all legal relations of simple owners of goods (buyer and seller, creditor and debtor, contract, obligations, etc.)." [MEW 3: 346]

In terms of archaeological sources, the excavations of ancient city complexes take first place: Greek poleis in the motherland and in the colonies (especially on the Black Sea); Hellenistic trading cities such as Palmyra and Dura-Europas, whose heyday was in the Roman imperial period; the famous excavations of Pompeii and Herculaneum, provincial Roman cities such as Xanten on the Lower Rhine, Carnuntum (between Vienna and Bratislava) and Aquincum (Budapest). The number of preserved buildings and technical facilities is rich: city walls, palaces, villas and tenements, thermal baths and heating systems, workshops, harbor facilities, aqueducts, military and trade routes, manor houses with accessories, as well as a wealth of cultic, cultural and military facilities. The many finds of commercial products are of particular value. The distribution of pottery (terra sigillata), glassware and coins provides crucial information about the direction and intensity of trade relations.

Written sources dominate the tradition of the economic history of feudalism. However, medieval archaeology has uncovered a number of important objects from the first periods of feudalism: important early medieval trading centers, suburban merchant and artisan settlements, harbor facilities and palaces, farmsteads, occasionally also land deserts and village churches, individual workshops and technical facilities.

For the early centuries with weaker sources, the works of historians (chronicles, annals, biographies, etc.) must always be consulted, as well as the legal sources, e.g. the laws of the people for individual tribes and the capitularies as attempts at national legislation in the Frankish Empire.

However, the written tradition of early and fully developed feudalism was initially largely determined by the charters of the church and the great feudal lords; from the 13th century onwards, towns, members of the lower nobility and parts of the bourgeoisie also issued charters. The deeds usually attest to a legal decision or a legal transaction. They relate to almost all areas of social life under feudalism; the proportion of economic history

relevant content is considerable. Of far greater importance for the economic historian are the book-like records in which a specific condition was recorded cross-sectionally or changes were entered on an ongoing basis. Larger feudal landowners recorded their property and the burdens placed on it by the peasants in the barons and tithe registers [12]; such records begin sporadically in the 7th century and have survived on a larger scale since the 8th/9th century (e.g. St. Germain-des-Près in Paris, St. Remi in Reims, Werden an der Ruhr). In addition, from the 8th century onwards there are the **[242] tradition** books [12] of larger monasteries, in which they recorded the donations of land. The tradition books were superseded by the charters from the 12th/13th century onwards, while from the 13th century onwards, urban registers were also compiled by individual territories and then even by smaller manorial estates (minor nobility and monasteries) in increasing numbers and under a wide variety of names. Fief registers and copybooks have been handed down since the 14th century; in them, the fiefs issued by the princes were recorded once or continuously and often with detailed information.

From the 12th/13th century onwards, town books and accounts were kept on an ongoing basis. Legal transactions carried out before the town council or town court were recorded in the town registers: Land sales and encumbrances, purchase and debt contracts, life annuities, wills and trusts, inheritance and guardianship matters. In the larger cities, special series were created early on: for land transactions (e.g. the Cologne Schreinsbücher and the Lübeck Niederstadtbücher), for debts of individual citizens (Schuldbücher), for municipal legal norms ("Stadtbücher" in the narrower sense) and for the judgments of the municipal courts.

Municipal accounts began to be used in large Italian municipalities as early as the 12th century, in Germany in the

However, they are usually only preserved in closed series from the 15th/16th century onwards. In the account books, the individual accounting transactions are reproduced in detail, so that the source value extends far beyond financial history.

From the 13th century onwards, the accounts were kept by sovereign administrations, large manorial estates, ecclesiastical institutions, hospitals and church building funds. Here too, special series were separated out, in particular the tax registers (partly notes, partly invoices!).

Customs registers are a special form of account book in which the revenue of a customs place was recorded. While the early medieval customs rolls (= tariffs) only show the range of goods traded, the customs registers can usually also be used to statistically determine the volume and density of goods traffic, e.g. the transportation of goods between the Baltic and North Sea using the famous Sund customs registers [5] (published for the years 1497-1783).

From the 13th century onwards, large merchants, merchant companies and then also banks kept records of their transactions, initially in the form of ledgers, then in "trading books" with notes on selected or all transactions on their own and third-party account and finally in account books [11]. Soon the letters received were also kept. Although only a relatively small number of these "merchant archives" [8] have survived, their source value is consistently very high. They mostly originate from Italy and from the Hanseatic and Upper German trading centers.

Finally, reference should also be made to the legal sources: the large legal records (e.g. the Schwaben- and Sachsenspiegel), the many individual norms (mandates, privileges etc.), the market, mint and town laws, the court rulings (especially the late medieval town courts) and, in the area of landlordship, the records of rural customary rights (coutumes, weistümer). In the coutumes (14th-18th centuries), the existing law of individual villages and manorial lordships was recorded regarding cooperative land use, village coexistence and the relationship to the village lord. Economic literature has increased since the 13th/14th century. Some important works on economic theory (Thomas Aquino) and on agriculture (e.g. Petrus de Crescentiis and Konrad von Megenberg) also utilized the practical experience of their time, while most contemporary writings only compiled excerpts from works by ancient authors.

[243] In the era of transition from feudalism to capitalism, from the turn of the 15th to the 20th century

From the 16th century onwards, written sources dominated completely and definitively in the economically developed countries; since then, non-written sources have only had supplementary value. Written records now became an indispensable instrument of economic management and control. The "age of records" had begun. The use of book-like records was consolidated and spread along with the file system. Accounts were kept continuously in the various branches of state, municipal and church administration and management, by the larger estates and manors, by large merchants, in the manufactories and in mining. In rural areas, the Urbane persisted until the end of the 17th century.

In the 16th century, these were increasingly replaced by inheritance registers (official registers, sal books, etc.), in which sovereign rights, land holdings and feudal rents for the individual feudal estates are recorded in great detail. In addition, there are the valuations (estimates) for leases, sales and inheritance settlements.

The establishment of the medieval town registers spread to the countryside from the 16th century onwards. Local princely and baronial administrations, like the municipal courts, now kept their own "action books", from which separate purchase, land, mortgage and similar books quickly emerged. The land registers in the Bohemian lands and the Polish grod and land registers are comparable to these.

In Italy, France [13] and the Netherlands, where this state book authentication had not become established, the notarial system developed in the 12th/13th century. In these countries, notaries took over the authentication of the same legal transactions. The indexing and analysis of notarial archives only began a few decades ago; they are still largely in their infancy.

As the financial needs of the late feudal state grew, so did the records of its financial administration. The tax registers (with different names depending on the type of tax) are now more informative as a result of more refined assessment methods.

From the end of the 17th century, individual countries began to draw up land registers. The cadastres were primarily used as a basis for land taxation. They were based on thorough land surveying, described every plot of land and building and were divided into two parts: the cadastral books (text and lists) and the cadastral plans.

If we look at the archive records according to their origin, the sources of the feudal state's administrative and economic apparatus come first in terms of scope and importance. Since the 16th century and increasingly during feudal absolutism, numerous specialized economic authorities were established. The holdings of these authorities contain a wealth of information on economic history. The records are particularly rich where the feudal state itself acted as an entrepreneur: for the state-run manufactories (e.g. porcelain), mines and saltworks, for the domains and state forests. The archives of large privileged companies (Thurn & Taxis'sche Post, colonial companies) are comparable to these.

Archives of the feudal nobility have been preserved from the 16th century onwards. If feudal lords also ran manufactories and other commercial enterprises, such as Bohemian or Upper Silesian magnates, the corresponding documents can be found in their archives.

Only a small part of the archives of the merchant and manufacturing bourgeoisie [8] has survived, such as numerous Italian merchant archives from the 16th century, the Fugger archive and the archive of the Catalan merchant and banker Simon Ruiz. **[244]** For the 17th century and largely also the

The 18th century saw a great loss of sources, so that the state manufactories and privileged trading companies are over-represented in the records. From the middle of the 18th century onwards, more company archives were preserved.

Numerous guild archives have been handed down to us from the 16th century onwards, which mainly contain information about the rights and cooperative life of guild craftsmen.

inform. For the individual craftsman, on the other hand, there was no need for ongoing business records. This also applied to the mass of feudally dependent farmers. [21] The tradition of village communities (especially community accounts) has often been overlooked by researchers.

In late feudalism, separated from antiquity by more than a thousand years, the first practice-oriented economic literature emerged again. [3] The development began in the field of finance (Italian bookkeeping, Meder's trade book, textbooks of the arithmetic masters) and mining (e.g. Agricola) and spread to agriculture in the 16th century (e.g. the German "Hausväterbücher" until the 19th century, but also the estate descriptions, economic instructions and contracts published as models). From the late 17th century and especially in the 18th century, a rich, specialized literature on the management and technology of individual branches of trade spread. It was supplemented by illustrated model and pattern books.

The reference works of the 18th century are also important sources for the economic historian. First and foremost are specialist encyclopaedias, such as the famous "Krünitz" [9], which with its almost 250 volumes and many illustrations has remained an inexhaustible treasure trove to this day. The numerous "historical-statistical-topographical" country descriptions, which grew out of late feudal state practice, aimed to provide precise, fact-filled overviews of a country or territory and its economic performance, of the state and its estates, the country and its people.

The printed newspapers, which emerged in the 17th century and spread rapidly in the 18th century, contained numerous articles on economic issues and progress, as well as official notices and advertisements of various kinds. Finally, reference should also be made to the economic trade press, which became increasingly differentiated according to individual economic sectors in the second half of the 18th century.

The volume of sources for the economic history of capitalism [15: vol. 1] is many times greater than for all previous modes of production combined. This "explosion" of sources intensified with the transition to imperialism and has reached new dimensions since 1945.

With the organized labour movement, the oppressed, exploited class appears on the scene as the producer of a wealth of its own sources. The concrete specificity of this new class line in the historical tradition results in each case from the development and strength of the workers' movement, the forms and methods of struggle in the concrete political situation. In the foreground are the works of the classics of Marxism-Leninism and the sources of the various organizations of the workers' movement (workers' parties, trade unions, women's, youth and other organizations): the official documents (especially the minutes of the party conferences and trade union congresses), the organizational literature, the party literature, the workers' press, company newspapers, leaflets, etc. In addition, there are the memoirs and estates of labor leaders, diaries, veterans' reports. The source value for the economic historian lies as much in the assessments and analyses as in the multitude [245] of facts that are not or only incompletely and one-sidedly handed down in the sources produced by the capitalist class. First and foremost, of course, are the concrete effects of economic policy and economic measures on the situation of the working class and its conditions of struggle; but there are also many important statements about other classes and strata affected by capitalist exploitation.

Among the sources of bourgeois origin, archival collections continue to occupy first place. They reflect the objective reality of this class society more reliably and more completely than its published sources.

The archival records of the bourgeois state apparatus continue to be of great value. Their value depends on various factors. Strong state supervision always corresponds to a favorable source situation with a great deal of concrete information, as evidenced by the wealth of files on businesses subject to licensing until the introduction of freedom of trade. With the transition to monopoly capitalism, this wealth of detail took a back seat to the demands and wishes of large and medium-sized enterprises, corporations, chambers of commerce and business associations. Especially

dense is the tradition of the state monopoly management bodies in times of crisis and war, that of the management bodies and enterprises of the state capitalist economy (e.g. mining, transport, energy, forestry) including municipal enterprises, but also for large state and armaments contracts, for state subsidies, guarantees and sureties.

The entire breadth of macroeconomic processes is reflected in the holdings of the political and economic policy decision-making centers at the national and regional level: in the holdings of the government chancelleries and cabinets, the state and provincial administrations, the civic parliaments; furthermore in the holdings of the economic departments: the ministries of economics [36], trade, industry, transport, agriculture and labor. The files not only contain the decision-making processes themselves (including memoranda, expert opinions, submissions and agreements with monopolies and major banks), but also a large volume of preparatory documents. The reflection of ongoing government and administrative activities in the central holdings corresponds to the richly detailed records of the many specialized economic authorities at the middle and lower levels. The municipal archives are increasingly losing their source value, apart from in times of crisis and war.

Detailed information on individual capitalist enterprises is provided by the files of those authorities that issued trade licenses (the period of free competition capitalism), those that carried out the bourgeois agrarian reforms (separation offices and debt relief institutions), and for special research also the holdings of the patent, building and other special offices. The registers of so-called voluntary jurisdiction (usually kept by the lower courts) for certain forms of business (trade and cooperative registers) and for land ownership (land and mortgage registers, tax registers) have specific source value. They consist of the actual register (with entries made on forms) and the associated individual files for each company or property.

Consular reports provide ongoing information on the economic situation abroad and foreign trade interests; excerpts are published in special series, journals or chamber publications. The archives of the bourgeois parties and economic-political interest organizations have generally only been preserved since the turn of the 20th century. For the preceding period, but also for the 20th century, the estates of bourgeois party leaders and parliamentarians must always be consulted.

With the transition to imperialism, the archives of large banks and monopolies [4] in the developed capitalist states have reached such proportions that their size corresponds to that of medium-sized and central state organs. As a rule, the files of their decision-making centers are of great value: the minutes of the meetings of their supervisory and executive boards and their committees, the files of the secretariats of their board members and management departments. The holdings of the "economic departments" and "bank archives" provide ongoing information, reports, memoranda and expert opinions on the market situation and general economic policy in Germany and abroad. The largest part of the corporate and bank archives consists of production documents, business correspondence, accounting documents, "customer files", the (usually only incompletely preserved) documents of the development and design offices, the files of the cross-sectional departments (personnel and "social", legal and patent offices, press officers, etc.). In the present day, the records of capitalist companies are changing to the extent that electronic data processing is being used.

From the period before the turn of the century, the archives of large capitalist enterprises - despite significant exceptions - are often only fragmentary, with the exception of the archives of state capitalist enterprises and those of large landowners for their agricultural and industrial enterprises.

The records of simple producers of goods, small and medium-sized industrial and agricultural enterprises are quite poor. They had little need to prepare and keep written records because their business plans were only of a short-term or medium-term nature

and there were only a few state accounting and record-keeping regulations. The preservation of family traditions, if at all, usually extended to sources of little significance in terms of economic history.

The archives of capitalist chambers and associations are more complete. The archives of the chambers of industry and commerce (and similar institutions for other economic sectors) contain sources on economic development in the chamber district and on individual members as well as documents on influencing legislation and other decisions by state bodies (e.g. expert opinions, memoranda and enquiries). In individual cases, the holdings date back to the 18th century. The archives of employers' and employers' associations generally date back to the beginning of imperialism; they are often preserved in the archives of those corporations and companies in which their leaders and managing directors worked full-time as directors, board members or syndici.

The huge amount of printed sources, which has been growing ever more rapidly since the transition to imperialism, is almost impossible to overlook. The economic, technological and technical literature has become extraordinarily differentiated. An extract from this literature is provided by the contemporary universal encyclopaedias (e.g. Larousse, Encyclopaedia Britannica, Ersch-Gruber, Brockhaus) as well as the specialized encyclopaedias of national and business economics and the individual branches of the economy. Until the full triumph of the industrial revolution, statistical topographical descriptions of the country were published as further sources of information, which were still in the tradition of their mercantilist predecessors.

Since the last third of the 19th century, a new form of economic reference [247] work has emerged in the form of handbooks on the most important capitalist companies [18]. The information in these handbooks was mainly based on information from the companies concerned and their balance sheet publications. They are published at annual or multi-annual intervals for all economic sectors (e.g. the "Handbuch der deutschen Aktiengesellschaften", "Saling's Börsenpapiere" and the "Compass"), others for individual stock exchanges; still others specialize in individual economic sectors (e.g. mining, Lloyd's shipping register, the so-called goods address books). Finally, large corporations and major banks provide information about their organizational structure in their own manuals.

Biographical information resources on leading capitalists have appeared since the turn of the century, partly as special sections in some of the aforementioned handbooks, but partly also as independent biographical handbooks (e.g. the "Adreßbuch der Direktoren und Aufsichtsräte" [17]). These reference works primarily provide information on supervisory and management board positions.

Companies of the most important legal forms (above all corporations and cooperatives) must be entered in commercial or cooperative registers and publish their balance sheets, profit and loss accounts annually in prescribed state announcements and the daily press. With the new economic and technical possibilities, the daily press gained greater dimensions in terms of topicality, circulation and scope (and thus also the amount of information). For the economic historian, the national daily newspapers with their economic reports and their "trade section" [6] (stock exchange reports and quotations, value quotations, central bank statements, balance sheet and financial statements publications) are particularly productive, as are the special economic newspapers [20], which were usually backed by certain junker or monopoly and banking circles. "Newspaper clippings collections" were kept at corporate headquarters and major banks, business associations and institutions as well as large newspaper editorial offices; various image archives of newspaper editorial offices and news bureaus are also available.

Under capitalism, the so-called official publications issued by state organs and institutions also developed: the state manuals, which regularly provide information on the structure and staffing of the state apparatus; the law gazettes and the ordinance sheets of the specialized ministries (best used via multi-year registers and loose-leaf collections); the parliamentary minutes and printed matter (usually only for the plenary proceedings

published!) as well as the state and municipal budgets and accounts; the annual and multi-annual activity and administrative reports of ministries, central specialized authorities and municipal administrations. These publications correspond to the activity reports, memoranda and expert opinions of the chambers and business associations.

The publications for advertising and sales are also numerous and varied: company histories (mostly published on anniversary occasions), company newspapers and "house magazines" with the aim of advertising, apology and disorientation of the workers; work descriptions, prospectuses, catalogs and price lists; advertising (from newspaper advertisements to advertising films).

Statistics occupy a special position within the overall source tradition on the capitalist mode of production. In the course of the 19th century, statistics expanded from the recording areas of mercantilism (population movements, foreign trade, state enterprises) to ever wider areas of social and especially economic life. However, the contradictions of interest in capitalism prevented the development of uniform statistical services: Statistical surveys and publications are therefore carried out side by side by statistical departments of state (and municipal) bodies, corporations, monopolies and business associations. A considerable proportion of statistical data remains internal.

In the last third of the 19th century, the most important form of publication for statistical data was the publication of statistical yearbooks at national level; their source references - as a kind of special bibliography - lead the reader to the titles of the special statistics. At the international level, the statistical yearbooks of the League of Nations, and later those of the United Nations and its specialized agencies, have been published since the 1920s. The central statistical offices have now followed the example of economic historians and publish long time series.

Sources and the state of tradition on the history of the socialist mode of production [15: vol. 2] have a fundamentally new character compared to the preceding modes of production. In terms of content, the sources differ in terms of the bearer, the working class and the classes and strata associated with it, and in terms of the goals and methods of socialist economic and social policy. The scientifically founded organization of the economic processes, based on the utilization of the economic laws of socialism, determines the content and form of the sources, as does the principle of democratic centralism (central management and planning in their connection with the creative power of the working class and all working people).

The quality of documentation changes in the individual stages of development and exhibits national peculiarities. This applies in particular to the respective initial periods, in which the concrete conditions differed even more from one another, when other forms of ownership existed temporarily alongside the socialist forms of ownership, many tasks necessarily had to be solved operationally and some sources were lost in the revolutionary process.

As the working class learned to manage economic processes better and better, the informative value and completeness of the tradition increased. In the socialist states that had emerged since 1944/45, this process was shortened because they were able to build on the experience of the Soviet Union. The increasing convergence of the countries of the socialist community of states, in particular new forms of cooperation between their planning bodies, their research and production potentials within the framework of further economic integration, promotes the process of international standardization of the source tradition.

The most important sources for the history of socialist society are the documents of the parties of the working class. They contain analyses of the state of social development achieved, theoretical generalizations of the experience gained, strategic objectives and concrete guidelines for solving the tasks and problems at hand. The documents reflect the leading role of the parties of the working class in all areas of society.

For the economic historian, all types of documents come into consideration: the party programs and statutes, the materials of the party congresses and conferences and the meetings of the Central Committee (reports of the party leadership, resolutions, directives, contributions to discussions), the resolutions and directives of the highest party organs. Particularly noteworthy are the reports of the party leadership before the party congresses. They contain - at the crossroads of social development - the decisive assessments and objectives and at the same time provide concrete information on the status and tasks in the decisive branches of the national economy. The documents of the workers' parties are available in individual publications and special publication series, in the daily and trade press as well as in the party archives.

Of particular interest are the various economic, industrial, farmers' and other economic conferences.

The participation of the working people in the management processes, the mass initiatives, such as the competition, activist and innovator movements, are most concentrated in the documents and materials of the socialist mass organizations, the trade unions, the farmers', youth and women's organizations. Their concrete complement at the level of working collectives, factories and combines are the collective agreements and competition commitments, statements of account, minutes of production consultations and general meetings of production cooperatives, brigade diaries [1], company newspapers and chronicles, the experience reports of veteran workers [19].

The socialist economy is a socialist planned economy. It is managed on the basis of socialist ownership of the means of production and by utilizing economic laws according to uniform plans. The documents of planning, accounting and statistics as well as the relevant legal norms are therefore of direct importance to the economic historian after the party documents. As the possibilities and dimensions of economic planning have developed, so too has the planning methodology. Plan preparation and control, accounting and statistical reporting have been increasingly harmonized, so that they are now combined into a uniform information network.

The planning literature is supplemented by the large number of statistical sources and publications: the statistical yearbooks of the individual socialist countries, the communications of their central statistical administrations and publications for special areas of social life.

In all areas and phases of planning, accounting and statistics, the amount of data obtained and processed with the help of electronic data processing is increasing. The use of EDP makes it possible to record and evaluate economic factors and processes in a much more versatile and up-to-date manner. The economic historian can rely on a large number of "result documents" (analyses, reports, update series) and statistical tables that have partially or completely processed the recorded data. The original documents, which are usually only machine-readable and no longer visually legible, are usually destroyed after some time.

The documents of the parties of the working class and the planning documents form the core, the basis for research into the economic history of socialism. However, the other documentation produced by the large number of central and local state organs, economic management bodies, state-owned and cooperative enterprises, research and information institutions must not be overlooked. The concrete relationship between central and local or operational planning, between territorial and branch management, between centralization and decentralization of decision-making powers and responsibilities is an essential criterion for answering the question of where the most relevant sources were created or handed down.

The sources of the mass media have increased considerably in scope and importance [250] under socialism. Their specific source value results from their function as collective

Propagandists, organizers and informers of the working masses in the struggle to fulfill the tasks set by the party and government. First and foremost, the party press, the press organs of the socialist state and the mass organizations should be mentioned, as well as the abundance of general political, theoretical and scientific-technical newspapers and magazines, specialist journals and press products of individual branches of industry.

In addition, there is the entire spectrum of economic literature. The results of economic science and practice are summarized in a series of knowledge repositories, in particular in the universal encyclopedias (Great Soviet Encyclopedia, Meyers Neues Lexikon, etc.) and a growing number of specialist economic encyclopedias. These knowledge repositories generally provide information on the current state of knowledge, but in many cases also provide historical outlines and further references.

The international economic cooperation of the socialist states - from the Soviet Union's first aid measures for the countries liberated from fascism to the constant deepening of socialist economic integration - is based on a comprehensive range of sources. Treaties and agreements, protocols, resolutions, recommendations, documentation on joint investment objects, activity reports, bulletins and statistics are the most important types of sources produced or published by the Council for Mutual Economic Assistance and its organs (secretariat, standing committees, international institutes), the international economic organizations, the CMEA states and the member countries (state planning commissions, specialist ministries and economic bodies, foreign trade companies, companies and institutions with direct relations). Since 1970, the CMEA Secretariat has published the

"Statistical Yearbook of the CMEA Member States" [33]; it is supplemented by another Soviet reference work [31].

At the end of this article, we would like to draw your attention to some source genres that have been omitted from the previous pages.

Production facilities, machines, means of transportation and tools decay or disappear as soon as they are no longer needed for the production and reproduction process. Products normally only survive if they are intended for long-term use. It is only since the 19th century that "material witnesses" of economic and historical interest have been recognized as cultural assets, preserved by the preservation of monuments and collected by museums. In recent decades, "industrial archaeology" has emerged as a specialized discipline for the study of "technical monuments". [2] [23] In the meantime, however, extensive losses have occurred. Maps, plans and technical drawings have only survived to any significant extent from early capitalism onwards. Maps and plans were mostly created for the planning and maintenance of production sites, particularly numerous in land-based industries (mining, agriculture and forestry, transportation) and for the purposes of settlement and territorial planning. Technical drawings of buildings, machinery and tools, of technical processes and products have prevailed since the 16th/17th century; they can be found in archives and as illustrations in technical literature.

For a long time, coin finds were the most important sources for determining trade relations and -At the same time, they provide valuable information about social differentiation processes. The coins themselves provide important technological information about metallurgy and metal processing.

[251] Works of fine art and fine literature are also sources of economic history; however, their recording and use by economic historians is still largely in its infancy. From the top achievements of world culture to trivial literature and everyday art, there is hardly a genre that offers the economic historian not only vivid images but also concrete insights into economic facts and contexts. Engels called Balzac's novel cycle "La comédie humaine" "a complete history of French society, from which I have learned more, even in its economic details ... than from all the professional historians, economists and statisticians of the time put together" [MEW 37: 43 f.].

Oral tradition is of great importance for the history of many countries liberated from colonial oppression, especially as the colonial exploiters usually only recorded the history of these peoples peripherally in their written sources, predominantly from the perspective of their exploitation interests or through the lens of one-sided conceptual schemes of bourgeois cultural anthropology. The rapid progress that the developing countries have made in recent times in researching their own past, especially in the recording and evaluation of archaeological sources, confirms and modifies the statements of the oral tradition.

There are no comprehensive overviews, surveys or references to sources on economic history. References and further reading can be found in the usual handbooks, in special studies and in some cases also in the relevant specialist dictionaries. The following bibliographical references are primarily intended to draw attention to methodologically important and further-reaching works.

At the same time, reference is made to the most important reference works on the holdings of archives [25] [30] [35], libraries [29] [30] [34] and museums [27] [32] in the world and especially in the GDR.

The textbook by Nestler [14] provides extensive information on general bibliographies and on important library catalogs in Germany and abroad; however, it does not list any specialist bibliographies.

Literature:

- 1 Czihak, H., in: JWG 1974, IV, p. 297 ff.; 2 Hudson, K.: A guide to the industrial archeology of Europe. Bath 1971; 3. Humpert, M.: Bibliographie der Kameralwissenschaften. Köln 1937; 4. Ihnato-wicz, I., in: Archeion 1956 (XXV), p. 85 ff.; 5. Jeannin, P., in: Rev. hist. 1964 (CCCCLXX), p. 55 ff.; 6. Kahn, E./Naphtali, F.: Wie liest man den Handelsteil einer Tageszeitung? Frankfurt/M. 1924;
- 7 Kellenbenz, H.: Grundlagen des Studiums der Wirtschaftsgeschichte. Cologne/Vienna 1973; 8. in: Fourth International conference of economic history (Bloomington 1968). Panis/La Haye 1973, p. 131 ff.; 9. Krünitz, J. G.: Ökonomisch-technologische Enzyklopädie. Vol. I-CCLII. Berlin 1773-1858; 10. Kula, W.: Problemy i metody historii gospodarczej. Warsaw 1963; 11. Melis, F.: Documenti per la storia economica dei secoli XIII-XVI. Firenze 1972; 12. Metz, W., in: Archiv für Diplomatik 1958 (IV) p. 183 ff.; 13. Monicat, J., in: Rev. hist. 1955 (CCXIV), p. 1 ff.; 14. Nestler, F.: Bibliographie. Leipzig 1977; 15. Neuß, E.: Aktenkunde der Wirtschaft. T. 1-2, Berlin 1954-1956; 16. Pitz in: Hist. Z. 1976 (CCXXIII), p. 1 ff.; 17. Radandt, H., in: JWG 1966, T. II, p. 241 ff.; 18. Ders./Günther, R./Zschocke, H., in: JWG 1962, T. II, p. 257 ff.; 1963, T. IV, p. 313 ff.; 1965, T. IV, p. 301 ff.; 1967, T. IV, p. 409 ff.; 19. Schiel, I., in: AM 1976 (XXVI), p. 45 ff.; [252] 20. Schmalenbach E., in: Zeitschrift für handelswissenschaftliche Forschung 1906/07 (I), p. 276 ff., p. 361 ff.; 21. Slicher van Bath, B. H., in: AAG bijdragen 1962 (VIII), p. 5 ff.; 22. Stummvoll, J.: Technikgeschichte und Schrifttum. Düsseldorf 1975; 23. Thijs, A., in: Revue belge d'histoire contemporaine 1975 (VI), p. 145 ff.; 24 Zorn, W.: Einführung in die Wirtschafts- und Sozialgeschichte des Mittelalters und der Neuzeit. 2nd ed., Munich 1973; 25th *Annuaire international des archives*. Paris 1975; 26. Einführung in das Studium der Geschichte. 3rd ed., Berlin 1979; 27th *Handbuch der Museen und wissenschaftlichen Sammlungen in der DDR*. Halle 1963; 28. *l'histoire et ses méthodes*. Paris 1960; 29. *Internationales Bibliotheks-Adreßbuch*. 3rd ed., T. 1-4, Munich 1970; 30th *Yearbook of the Libraries, Archives and Information Centers of the GDR*. Vol. 1 (1959) ff., Berlin 1961 ff.; 31. *Mir socializma v cifrach i faktach*. Moscow 1971 ff.; 32. *Museums of the world*. 2nd ed., Pullach 1975; 33. *Statisti- tčeskij ežegodnik strančlenov Soveta Ėkonomčeskoj Vzaimopomašči*. Moscow 1970 ff; 34 *Subject collections in European libraries*. 2nd ed., New York 1977; 35. *Taschenbuch Archivwesen der DDR* Berlin 1971; 36. *Zur Geschichte der Produktivkräfte und Produktionsverhältnisse in Preußen 1810- 1933*. vols. 1-3, Berlin/Weimar 1966-1971.

Hans-Stephan Brather

(using preliminary work by Elisabeth Brachmann-Teubner,
Hartmut Harnisch and Peter Musiolek)

1.5.3. On working with economic-historical sources using the example of capitalist production methods

For economic history studies, it is necessary to familiarize oneself with the source situation in the respective field and with the special features of individual sources to be used specifically. For reasons of space, only a few examples can be presented. What has been said here about the use of bibliographies, library and archive collections and statistical handbooks can also be applied analogously to economic history research on the socialist mode of production.

The national bibliographies are not entirely complete with regard to titles important to economic history. Thus, more or less many titles of private prints of companies, enterprises, economic associations, institutions, institutes and authorities as well as of company reference works are missing, which can often only be found in special collections of certain libraries (see [17] or in periodically published reference works, e.g. [10] [16]) or by using several libraries (as shown in [4] [5] [7] [9]). Only some of the titles for private publications by companies, businesses, economic associations, institutions, institutes and authorities as well as for dependent publications, e.g. journal articles, are listed in special bibliographies or hidden bibliographies, the titles or identification of which are listed in special bibliographic publications (see [1]).

Due to the fact that a number of printed products were not collected in the past or due to the effects of war, there is hardly a copy of some books, but above all of many newspapers and periodicals, in libraries. Between 1871 and 1945, for example, there were well over ten thousand periodicals published by companies or economic associations in the German Reich, millions of company prints, mostly advertising brochures for individual products, all of which contain data on [253] economic development and which are often the only publications of pictures of the products or production sites. We will search in vain for almost all of these publications in libraries today. Even book collections that were formed in economic associations or companies contain very little of them.

The search for material in archives is able to close these gaps to a small extent, even if the relatively late establishment of economic archives (see [2]), insufficient archiving and the effects of war do not guarantee completeness anywhere. Nevertheless, the records of board members and directors of former capitalist companies, as well as those of advisors and clerks in former ministries and other authorities, often contain complete volumes of the publications of economic associations and institutions, sometimes only in hectograph form. These are particularly to be expected where board members and directors belonged to the leading committees of economic associations, which can be found in the corresponding handbooks (e.g. [10] [15] [16]).

Special collections of newspaper clippings, such as those found in the archives' holdings of authorities, organizations or companies, e.g. in the holdings of the economics departments of Dresdner Bank and IG Farbenindustrie AG (Central State Archives of the GDR) and the Federation of Farmers (Central State Archives of the GDR, Museum of German History, Academy of Agricultural Sciences of the GDR), serve to supplement daily newspapers that no longer exist or to make it easier to find newspaper articles on specific economic problems or developments.

For successful and efficient work in the archive, the user must take into account the responsibilities of an archive (see [18]), acquire certain basic knowledge of economic practice and the history of institutions, the formation of holdings and organization (see [18]). For example, the user must know that the principle of provenance in the 19th century led to the creation and delimitation of holdings according to the historical context of origin and transmission of the archive material.

The archive user must always bear in mind that every archived process, unless it consists of one-off, uncopied (often difficult to verify!) records

must have at least one corresponding process in the inventory of the respective sender or recipient. The socialization of production, and thus also of economic administration and, not least, state-monopoly capitalism led to the fact that, in addition to minutes, reports, expert opinions, balance sheets and contracts, ever larger parts of important correspondence were given to third parties in duplicate.

Taking this development into account, it is sometimes necessary, in order to locate an important document, to make detailed considerations as to which archive holdings it should have been in for certain economic reasons. An example of such a procedure is the search for the contract concluded on March 5, 1915 between the Reich Chancellor (Reich Treasury) and the company Bayerische Stickstoff-Werke AG, Munich, concerning the nitrogen plants to be built and operated by the latter for the German Reich in Piesteritz and Chorzów, which was necessary for a scientific work on the establishment of the VEB Stickstoffwerke Piesteritz. In 1920, the Piesteritz plant was incorporated into Mitteldeutsche Stickstoffwerke AG, Berlin, whose shares were initially owned by the Reich. At the beginning of the 1930s, 90% of these shares were transferred to Bayerische Stickstoff-Werke AG and 10% to Ammoniakwerke Merseburg GmbH (IG Farbenindustrie AG). In 1933, Mitteldeutsche Stickstoffwerke AG merged with Bayerische Stickstoff-[254]Werke AG, in which Deutsche Bank and IG Farbenindustrie AG held shares. The Chorzów plant was seized by the Polish treasury in 1922. This led to years of litigation between Bayerische Stickstoff-Werke AG and the Polish state before national and international courts. Based on the knowledge of these facts, the following scheme for tracing the contract could be drawn up:

Holdings of company archives:

- VEB Stickstoffwerke Piesteritz and Stickstoffwerke Chorzów (PR Poland) (because they were built and operated under the agreement);
- Leuna-Werke "Walter Ulbricht" (because its capitalist predecessor company was Ammoniak-Werke Merseburg GmbH, which held a stake in Mitteldeutsche Stickstoffwerke AG).

Individual holdings of the Central State Archives of the GDR:

- Reich Chancellery and
- Reich Finance Office (because successor authorities of the Reich Chancellery and Reich Treasury, which concluded the treaty);
- Reich Ministry of Economics (because economic policy issues of the Reich were first dealt with by the Reich Office of the Interior [where the treaty must have been located], from which this area was separated in 1917 as the Reich Economic Office, which was renamed the Reich Ministry of Economics in 1919);
- Court of Audit of the German Reich (because the Reich budget was controlled here and the copy of the contract was used to control the funds spent);
- Restverwaltung für Reichsaufgaben (because an application for compensation from Bayerische Stickstoff-Werke AG concerning Chorzów must have been submitted here. A copy of the contract also had to be submitted);
- Reich Ministry of Justice (because the copy of the treaty must have served as the basis for legal opinions for the international trials in which the Reich was indirectly involved);
- Deutsche Bank and
- IG Farbenindustrie AG (because both were shareholders of Bayerische Stickstoff-Werke AG).

Holdings in other state archives of the GDR:

- Chief Finance President Merseburg,

- Cadastral office of the district of Wittenberg and
- Municipality of Piesteritz (because a copy of the contract must have been available here as proof of the Reich's ownership of Piesteritz);
- responsible forestry company (if the area of the Piesteritz nitrogen plant was Reich property before construction, a copy of the contract should also be available here).

Holdings of the State Archives of the People's Republic of Poland:

- Supreme Court of Poland and
- Katowice Voivodeship Court (because Bayerische Stickstoff-Werke AG's lawsuits against the Polish state were conducted here, for which copies of contracts had to be submitted). [255]

Holdings of economic archives of the FRG:

- Bayerische Stickstoff-Werke AG, Munich (because contracting party);
- Deutsche Bank AG, Frankfurt a. Main (because its predecessor Deutsche Bank held an interest in Bayerische Stickstoff-Werke AG and at the time the agreement was concluded in 1915, one of its Management Board members was Chairman of the Supervisory Board of Bayerische Stickstoff-Werke AG);
- IG Farbenindustrie AG, Frankfurt a. Main, in liquidation (because IG Farbenindustrie AG had previously held a stake in Bayerische Stickstoff-Werke AG and because its legal department was very interested in collecting samples of such contracts, on the basis of which it carried out extensive preliminary studies for the drafting of similar contracts of its own with the Reich. IG Farbenindustrie AG in liquidation has an overview of which of its successor companies in the FRG have the relevant files).

On the basis of this scheme, a draft and a copy of the contract could be found in the holdings of the Central State Archives of the GDR, so that it was unnecessary to consult foreign archives.

The creation of such a scheme requires, among other things, basic knowledge of economic law, economic geography, economic practice, the organization of archives and source studies.

This example from the practice of economic-historical research was given because it is clear that research into the history of the capitalist mode of production with its strong economic interdependencies almost always requires the use of several archives and - in this case already for the preparation of the schema - the consultation of company handbooks.

Company handbooks, address books of various kinds, certain biographical and statistical handbooks are literary genres that were created in the 19th century to provide up-to-date information to the various administrative bodies of the capitalist mode of production and were mostly published as periodicals, often annually.

Local address books are usually published annually. The occupations of the people listed in the address book are usually given. However, these address books are useless for sociological studies for several reasons. They only list the so-called heads of household, i.e. those who signed the tenancy agreements, but not any family members or subtenants. Their social status is often not clear from their occupation. Both the smallest and the highest employee are listed as salaried employees; "rentier" and "pensioner" include former small merchants or letter carriers as well as millionaires, and each of them may still have a job. Self-employed tradespeople, journeymen and semi-skilled workers call themselves carpenters, locksmiths, tailors, etc. Hundreds of thousands of widows were only referred to as "widow" as their main tenant in address books. This left it completely open whether their main income consisted of a pension, rent from subtenants or homework. None of the occupations listed in the address books were those that could not be practiced under the capitalist mode of production.

is unusual: beggars, prostitutes, criminals. On the other hand, the address books (which change annually) provide a precise overview of the occupation of the town administration. Since many trade registers have been destroyed by the war, the trade address book of a town is often the only source for the exact identification of formerly resident commercial companies and sole proprietorships by name (if the trade register is not available in print). For 1898-1943, the Reichs-Adreßbuch [12] can also be used for this task with restrictions. The owners of the houses are listed in the street **[256] address books**. This makes it possible, for example, to reconstruct parts of the organization and affiliation of subsidiaries to a group on an annual basis, especially since relatively independent group departments and group companies are often listed as tenants in these houses.

Any land holdings of capitalist companies, capitalists and managers can be determined in agricultural property registers, e.g. [19]. Here, all estates and larger farms in the German Reich are listed according to the former states, administrative districts, counties and localities with owners, tenants and managers. The total area of agricultural property, its industrial facilities, the size of woodland and water as well as the area used as arable land, gardens, meadows and pastures are listed, as are the number of horses, cattle, sheep and pigs. The individual volumes were published in 1-9 editions between 1902 and 1932, each for individual countries or parts of the German Empire with introductions on their agricultural conditions as well as place and name indexes. When using the handbooks, it should be noted that the minimum size of the agricultural property included varies in the individual volumes and even in their editions; it is 5, 10, 15, 20, 25, 30 or 50 ha. The respective minimum size is not always clearly indicated on the title page or in the foreword (sometimes two different figures in the same volume!). Not all farms of the specified minimum size are always listed either. These estate registers already had predecessors in other forms in the 19th century.

Company manuals are important for researching the overall development of a company, a group, an industrial or economic sector, but also for exploring specific facts of economic developments, e.g. the concentration process of capital, the merger of banking and industrial capital or the export of capital. In order to make full use of their content for research purposes, basic knowledge of capitalist economic practice and economic law is required. Each company handbook has certain peculiarities, without which its use for research purposes will lead to incorrect or false statements.

In addition to general address books, which only list names and addresses, there are three types of company handbooks. They list companies

- certain forms of ownership in all sectors of the economy, e.g. for stock corporations [16],
- of all forms of ownership in certain industries, e.g. for the chemical industry [13],
- of all forms of ownership in certain economic sectors (industry, import and export trade, wholesale trade, retail trade), e.g. for tobacco and tobacco products [21]. While the first group of company handbooks only provides information on companies of certain forms of ownership, e.g. joint stock companies, the others also cover limited liability companies, limited partnerships, general partnerships and sole proprietorships (see 2.5.19.). Generally speaking, all of these company handbooks contain more information about stock corporations than about companies of other forms of ownership, due to their obligation to provide information as stipulated in stock corporation law, but also because of their interest in attracting buyers for their securities. This is an advantage for economic history research in that the most important groups usually exist in the legal form of stock corporations.

The company manuals are not written by scientists for scientists. Their task is to meet the current communication and information needs **[257]** of capitalists and managers, to be a means of communication for the flow of capital, depending on certain communication motives. It does not matter whether this communication is sent directly to the company manual

or compiled by the publisher's editors from newspapers and magazines.

The hectic pace of press work often leads to printing errors, confusion of dates and names, as well as the inclusion or adoption of incorrect representations. In addition, there are false reports launched by corporate press offices in order to achieve short-term economic reactions in their favor.

Moreover, the press has the same opportunity to obtain information from the companies as the publishers of company manuals. Nevertheless, it is advisable, where possible, to use information from those manuals which show that it was obtained from the companies or checked before printing.

The information that can be expected from company handbooks and how informative they are will be demonstrated here using the example of the *Handbuch der Deutschen Aktiengesellschaften*, the most comprehensive company handbook. It was published annually from 1896/97 in one, then two, four and later six volumes.

As a rule, all stock corporations entered in the commercial register in Germany within the respective borders of the Reich or in the FRG and West Berlin are listed in each year. One exception is, for example, some armaments companies during the fascist era, after the Stock Corporation Act of January 30, 1937, provided a significant possibility for restricting the obligation to provide information: "Reporting must comply with the principles of conscientious and accurate accounting. It may only be omitted to the extent required by the overriding interests of the company or a participating company or the common good of the people and the Reich." [14: § 128]

The information on German stock corporations can be accessed via a company and place index, and until the end of the 1920s also via an industry index, which is included in each volume. As the individual volumes of each year were published one after the other, only the last volume of a year contains the page numbers valid for that year.

Until after the First World War, information on fixed-income securities, foreign banks and foreign railroads was also published in an appendix to the handbook, provided that the corresponding securities were traded on German stock exchanges.

Normally, the following information about a company can be found in the Handbook of German Stock Corporations:

Name and registered office of the company and any changes thereto;

Names of the founders (only for the first listing of the stock corporation in this handbook);

Date of foundation;

Purpose, object or field of activity;

Names of the members of the Executive Board, Supervisory Board, Management Board and Board of Directors, including the chairmen and deputy chairmen of these bodies;

Period of the financial year (e.g. calendar year or July 1 to June 30): Share capital;

Denomination of the share capital (number and nominal value of ordinary and preference shares); voting rights of the shares;

[258] special rights of preference shares (e.g. preference dividend); changes in capital since the formation or reorganization of the stock corporation;

Dividends of the last few years (sometimes going back 20 years); paying agents (redemption offices for coupons and dividend coupons);

Stock exchanges on which the company's shares are admitted to trading or are traded over the counter;

Stock market prices of the last years (only last price of each year or highest, lowest and last price of each year);

Bonds, debentures;

Profit participation rights (securities that securitize shares in the company's profits); balance sheets or important balance sheet figures, sometimes also balance sheets from previous years; profit and loss account;

Net profit distribution.

Until the 1920s, mostly smaller stock corporations did not list the supervisory board or only listed the chairman of the supervisory board. Often, until around 1925, the authorized signatories are listed, which from then on can only be found in [10: Vol. 2].

Companies that have only one or two shareholders can be recognized, even if no major shareholder is indicated, by the fact that some information cannot be given (stock exchanges, stock exchange prices) or is not given because other capitalists and managers are not interested in this case (financial year, denomination, voting rights, rights of preference shares, dividends, paying agents, net profit distribution).

The company names are often only abbreviated in the company and place registers of the handbook, sometimes misspelled or listed in the form of stock exchange names. Apart from unimportant exceptions, the correct company names are given in the text section. Not every unfamiliar spelling of a company name should be considered a printing error. There were companies whose names were entered in the commercial register in incorrect or unusual spellings, which retained these spellings and which must also be written in this form in scientific studies, e.g.: Allgemeine Elektrizitäts-Gesellschaft, Braunkohlen- u. Brikettwerke Roddergrube AG, Deutsche Ueberseeische Bank, Fried. Krupp AG, Hamburg-Amerikanische Packetfahrt-AG. If the same company names are used frequently, it is advisable to create a Sigel index and to use their stock exchange names or abbreviations in the text instead of the company names mentioned, such as: AEG, Roddergrube, DUB, Krupp, Hapag.

The net profit distribution indicates how the net profit resulting from the balance sheet and the income statement is allocated, e.g. to dividends, reserves, reserves and carried forward to new account. The reported net profit does not correspond to the profits. These can only be estimated on the basis of approximate calculations (see [3]).

In the case of larger stock corporations, the information becomes increasingly detailed from the mid-1920s onwards and includes a large number of the following points in addition to those already mentioned:

Date of entry in the commercial register; type of products;

Establishment and development;

major shareholder;

Property and business description (house and land ownership, factories, possibly important production facilities such as blast furnaces, rolling mills, branches, subsidiary plants);

[259] Subsidiaries and investments;

Holdings of treasury shares;

Contracts (e.g. management, dividend guarantee, leasehold, community of interest, cartel and lease agreements with details of the contracting party, the date of conclusion, the rights and obligations and the duration of the contract);

Membership of associations (cartels and business associations); bank details

or postal check account;

Bond portfolio (see [11]); turnover;

Production figures;

Number of employees (annual average or at certain specified dates); comments on the last annual financial statements;

Auditor's report of the auditor;

Date of the last Annual General Meeting.

The "bank details" only serve to indicate where the accounts of this stock corporation are held. Like the "paying agents" mentioned above, they are not to be confused with any capital relationships between the stock corporation and the banks mentioned.

Major shareholders are not always or not all listed. If the amount of a major shareholder's shareholding is not stated, a majority shareholding must not be assumed under any circumstances. Sometimes the amount of the shareholding is only stated with the addition "in the group", i.e. the stated shareholding in a company has been added together from the individual shareholdings of the companies belonging to a group.

The following information may be incomplete or incorrect or may give false impressions. For example

For example, the type of products produced by defense companies is often misleading or incomplete. Turnover and production figures may be incorrectly stated, for example, in the case of membership of a cartel. Contracts and membership of cartels, as well as subsidiaries and shareholdings, are often only very incompletely stated, especially in the case of corporate groups.

One of the most important points for the business historian is the description of the structure and development of the larger stock corporations in particular. In the interests of goodwill and the company's profit, only what seems appropriate to say at the time appears in such a historical account, just as with the current facts given above without any obligation to provide information. Thus, under certain circumstances, an event may only be recorded in one year of this handbook, sometimes one year, sometimes many years after it occurred. This fact, combined with the need to keep track of the latest information year by year, obliges the researcher to systematically collect the material from each volume of the handbook, possibly also consulting later volumes published after the period to be researched.

In order to obtain complete information, not only should other company manuals be consulted, in which experience has shown that information is often to be found that is not in the manual of the stock corporations, but also, where possible, the annual reports of the stock corporations should be consulted.

As a rule, the company's details are printed for the manual of public limited companies a few days after their general meeting, so that the date of this meeting marks the editorial deadline for the details. Changes after this date (e.g. resignation of a member of the Supervisory Board, death of a member of the Executive Board)

can only be seen in the annual reports, which in turn are only printed shortly before the respective annual general meeting. As meagre as the annual reports of some, even large, stock corporations often are, they generally contain more information on the development of the company during the financial year than has been included in the manuals. The Stock Corporation Act [14: § 128] stipulated, among other things, that the annual reports must contain information on the acquisition of shares, share capital, profit participation rights, contingent liabilities other than those shown in the balance sheet, total remuneration of the Management Board, Supervisory Board and Advisory Board, group relationships and cartel affiliations. Although not all of this information was provided in full in the annual reports in subsequent years, it has become more informative in the points mentioned.

The address book of directors and supervisory board members [10] lists them in alphabetical order with their addresses and functions as directors, members of the management board or supervisory board and members of the administrative board. This volume, which was not published until 1925, contains the names of the directors, members of the executive and supervisory boards and members of the administrative board, arranged alphabetically by stock corporation. The authorized signatories, who do not appear in the first volume, are also included here. When using this address book, the following errors and shortcomings should be noted, which are only pointed out to a small extent and not in each of the annual forewords (see [8]):

Incompleteness of the inclusion of the group of persons named in the title:

- Not all persons on the management bodies of (mostly smaller) stock corporations are included, and almost none from other forms of ownership, unless the most important mandate is held in a major company with other forms of ownership.
- Changes to the admission principles altered the group of people admitted. In some cases, more representatives of medium-sized and small companies were admitted and fewer and fewer Jewish elected representatives were listed.

The information does not always apply to the year of publication:

- By appearing too early, the results of most General Meetings of the current calendar year can no longer be taken into account.
- Some of those who died in the last few months before the publication of the address book are still listed for the year of publication.

Not all positions held as a director, member of the Management Board, Supervisory Board or Board of Directors are always listed. These positions are most frequently not mentioned for foreign companies. Designations as owner, co-owner or partner of commercial enterprises are only given in a few cases, usually if the company is a major one and the person concerned also has a number of supervisory board mandates. Management positions in GmbHs, OHGs, KGs or sole proprietorships are almost never listed.

Incorrect information:

- Incorrect alphabetical classification;
- Incorrect handling of double names; incorrect assignment of functions;
- wrong name;
- Omission of an entry in one or more years;
- Confusion with collective names. **[261]**

Printing error:

The order of indexing within the same surnames is usually as follows: noble names, surnames without first names, surnames with first names in alphabetical order, double names. Furthermore, the user should note the supplements, corrections or cover sheets sometimes found at the front or back of the volumes or inserted loosely.

This scheme of possible sources of error can also be applied analogously to other biographical handbooks.

There are many problems in economic history whose investigation requires the use of statistical reference works. Here, the Statistical Yearbook of the German Reich [20] may serve to draw attention to noteworthy points in this group of literature. This yearbook is one of the handbooks that make the greatest demands on the diligence of the user. Only if its various parts are given equal attention will it be useful for research:

- Preliminary remarks;
- List of abbreviations;
- Corrections;
- strongly structured table of contents;
- Bibliography (a good bibliography!);
- national set of tables;
- international overviews.

The tables should be used with the utmost care:

- Table heading, which is sometimes specified in the preliminary remarks to the table or in a note, e.g: Directors, managing directors, etc. for employees.
- Changing measurements in the header of the same table, e.g.: kg, dz, t, mill. t.
- Notes with limitations on the comparability of certain figures that have a slightly different basis for recording than the others in the same table:

regional, e.g. smaller or larger area;

temporal, e.g. instead of January-December only January-

October; factual, e.g. instead of fats: fats without vegetable oils.

- References to other statistics from the same volume of earlier years or other publications by the publisher.
- References to sources not originating from the publisher.
- All figures given for the most recent period are provisional and may be corrected in the next issue.

Literature:

- 1 *Fleischhack, C./Rost, G.*: Bibliographisches Grundwissen. Leipzig 1968; 2. *Eyll, K. van*: Voraussetzungen und Entwicklungslinien von Wirtschaftsarchiven bis zum zweiten Weltkrieg. Cologne 1969;
- 3 *Goll, G.*: Bilanzen und Profite. Berlin 1958; 4. *Günther, R.*, in: *JWG* 1963, T. IV, p. 313 ff.; 5. Ders. in: *JWG* 1967, T. I., p. 409 ff.; 6. *Kuczynski, J.*: Studien zur Wissenschaft von den Gesellschaftswissenschaften. Berlin 1972; 7. *Radandt, H.*, in: *JWG* 1962, T. II, p. 257 ff.; 8. Ders. in: *JWG* 1966, T. II, p. 241 ff.; 9. *Zschocke, H.*, in: *JWG* 1965, T. IV, p. 301 ff.; 10. *Adreßbuch der Directoren und Aufsichtsraths-Mitglieder der Actien-Gesellschaften*. Berlin 1898 ff., for further details see [71 [8]; 11. *Anleiheestockgesetz of December 4, 1934*; 12. *Deutsches Reichs-[262]Adreßbuch für Industrie, Ge- werbe und Handel*. Berlin 1898/99 ff.; 13. *Die chemische Industrie im Deutschen Reich*. 10th ed. 1939/40, Berlin 1940; 14th *Law on Stock Corporations and Limited Partnerships by Shares (Stock Corporation Act) of January 30, 1937*; 15th *Handbook of Economic Associations and Federations of the German Reich*. Berlin 1912; 2nd ed: *Handbuch wirtschaftlicher Verbände und Vereine des Deutschen Reiches*. Berlin 1919; 3rd ed. Berlin 1929; 16th edition: *Handbuch der Deutschen Aktiengesellschaften*. Berlin 1896/97 ff., further see [7]; 17th *Yearbook of the Libraries, Archives and Information Centers of the German Reich*.

GDR. Vol. 10, Berlin 1977; 18. *Lexikon Archivwesen der DDR*. Berlin 1976; 19. *Niekammer's Güter Adreßbücher*. Leipzig 1902 ff., for further details see [9]; 20. *Statistisches Jahrbuch für das Deutsche Reich*. Berlin 1880 ff.; 21. *tobacco address book for the German Reich*. Berlin 1924.

Hans Radandt

[263]

2. Economic history as a concrete historical process

[265]

2.1. Prehistoric mode of production

2.1.1. General characterization of the pre-social mode of production

The oldest and at the same time longest periods of human history are referred to as prehistory. This term became widespread in the 19th century due to the results of prehistoric archaeology, ethnology (ethnography), anthropology and historical-comparative linguistics. Prehistory is limited upwards by the emergence of written records in the oldest states of the Orient and antiquity, and downwards by the separation of humans from the animal kingdom. Since prehistoric development took place before the advent of usable written sources - the main sources of historical science or history in the narrower sense - or outside the scope of their information, the term prehistory (prehistory) was also coined. Marxist social science only uses this term to a limited extent, as it contradicts the understanding of the uniform historical process that has been objectively lawful since the creation of mankind. Early history is the name given to the periods of regional historical processes, for the study of which archaeological sources must be consulted in addition to the sparse beginnings of written records. [11]

Due to the common ownership of land, which determines social relations, and the absence of economic-social classes, prehistory is conventionally understood as the history of primitive society. Prehistoric society is understood as a unified economic-social formation (also referred to as primal community, primal community order, occasionally primal communist formation) and divided into a pre-gentile (period of human and social development - anthropo- and sociogenesis) and a gentile epoch (gentile society) (e.g. [26] [37]). This substantive characterization is also based on the contrast to the following formations, the antagonistic class societies characterized by private property. However, great qualitative changes also took place in the gentile society, above all the transition from the production form of hunting to that of land cultivation and animal husbandry, as well as the beginnings of private property, classes and the first forms of political rule in the bosom of gentile social conditions. In Marxist research, they form the subject of discussions on the periodization of primitive society, its unity as a formation and the value of these different qualities (e.g. [3] [7] [10] [20] [26] [27] [28]).

Prehistory is primarily researched by archaeology by means of the material [266] legacies of past prehistoric populations, the archaeological remains discovered through excavations. The object of ethnography in prehistoric research is formed by living, observed and described prehistoric tribes and peoples. Their economic, social and ideological conditions are depicted using the developmental-historical (historical-typological-comparative) method as the development of prehistoric society and its individual manifestations. By bringing together the results of archaeology, ethnography and other disciplines, the picture of prehistory in its gentile epoch is illuminated. The pre-gentile epoch cannot be grasped with the sources of ethnography; it is researched in particular by archaeology.

In archaeology, economic history studies on prehistory are strongly focused on technology and ergology, depending on their specific sources, which contain many products, including tools, weapons, implements and vessels, as well as settlement sites with production facilities, workplaces and storage facilities. The ethnographic sources also provide an insight into the functional contexts of prehistoric technology and economy, including production conditions. Since the end of the 19th century, ethnological research has given rise to the branch of economic ethnography (with special lines of investigation) (e.g. [6] [14] [23]). It compiled important factual material (e.g. [4] [5] [13] [17] [24] [30]) and

was dedicated, among other things, to the increasingly precise recording of economic levels (cf. [16]). The study of the prehistoric economy from an archaeological and ethnographic perspective on the basis of Marx's economic theory (especially [MGr] [MEW 23-25]) and other works and studies by the classics (including MEW [21: 27 ff.] and [35]) is an inherent component of Marxist-Leninist prehistoric research (cf. numerous individual studies and complete accounts, including [1] [15] [21] [26] [37]).

During the prehistoric beginnings of human history, the economy emerged along with society. However, the decisive basis of the economy, specifically human labor, already began with the creation of mankind, of which it was the driving force. The central importance of labour for the determination of man and his development was recognized by Marx and set out in his labour theory [MEW 23: 192 ff.] (cf. already [MEW 3: 21, 28 f.] and [MEW EB 1: 546]). He thus added the basis of social sources to the evidence of the natural, biological evolution of man. Applying this principle, Engels formulated one of the decisive laws of human history: "Labor ... is the first basic condition of all human life, and to such a degree that we must say in a certain sense: it has created man himself" [MEW 20: 444; 34: 169 ff.]. In the scientific-anthropological theory of Darwin, Huxley and others in the 19th century, the role of work was not initially taken into account.

There was no abrupt leap, no abrupt separation between animals and humans in the development of the human species. Rather, the beginnings of phenomena that were later specific to humans were already formed by the hominids that prepared the ground for human development. Their archaeologically discovered remains from the turn of the Tertiary and Quaternary periods provide us with evidence of directly genetically pre-human animal species and pre-human work with unprocessed means foreign to the body. These findings are supported by analogies in the behavior of recent primates, especially chimpanzees. Engels' view, which was theorized at the time: "Work created man" - referring to pre-human and early human processes - has thus been confirmed. Despite a constantly increasing body of evidence, however, it is difficult to clearly determine the findings of these periods. It often remains uncertain whether this or that stone is a tool and, if so, whether it is of specifically human or animal origin. Researchers would therefore do well to exercise restraint when constructing hasty new scientific schemes.

Hominid genera walking upright on two legs, which became the prerequisite for the process of becoming human, had evolved during the younger section of the Tertiary (Neogene), which lasted about 30 million years, whereby unspecialized primates adapted to soil life through mutations, selections and other biological developmental factors. The so-called australopithecines, which lived in South and East Africa about 5-0.8 million years ago, are currently known as their most advanced representatives [9] [32] [33]. The interpretation of their remains in connection with the find circumstances and accompanying finds says: Individuals of this species used their front limbs, the hands, for an imitative use of stones, sticks and other aids as unprocessed tools, weapons and devices for obtaining food and against hostile animals. Their superior ability to obtain sustenance acted as a selection factor. The tool-using hominids prevailed over related species and won the more suitable habitats in which they multiplied and spread. The upright gait was perfected, speed and agility in open landscapes and an extensive perception through the extended visual range reinforced their superiority. The further development of the brain was promoted.

This development took on a new quality with the production of artificial tools in the form of simple flaked stone tools. They were used for beating, rough tearing, scraping and cutting softer materials such as wood, animal carcasses and others. Remains of hominids found together with flaked stone tools are recognized by some researchers as an early species of the human genus - *Homo habilis* [9] [32] [33], while others are more cautious [25],

i.e. counted among the australopithecines. The interpretation of early Pleistocene boulder tools without skeletal material from other sites is still controversial. However, there is no doubt that the separation of humans from the animal kingdom in the process of the emergence of human labor began in that epoch about 3-0.8 million years ago. From a biological point of view, the term "animal-human transitional field" was coined for this epoch [12]. Archaeologists consider terms such as Archaeolithic, Early Paleolithic and others for the period of the emergence of human labor, with different time approaches.

The process of becoming human continued as a result of the conflict that thousands of generations of tool-making hominids (habilines) had with their natural environment and other hordes (also known as primitive herds), especially through the beginnings of human labor, which were still small in quantitative terms. Specific human activities gained from experience were passed on through imitation and learning (incorrectly described by some researchers as "social inheritance"). Their share was gradually increased. However, animal behavior must still have been effective to a significant degree. The stone tools that have been found, and more rarely those made of bone and wood, testify to the development of the working process. From about 500,000 onwards, an increasingly clear typology in technique (core stone, various chipping techniques) and form (hand axe, various chipping tools) of the stone tools already indicates a conscious production according to certain [268] ideas. On the basis of changes in the forms of stone tools in different periods and geographic areas, archaeology distinguishes the periods of the Upper Palaeolithic (ca. 800/600,000-150/120,000) and Middle Palaeolithic (ca. 150/120,000-40/35,000) - according to another classification Early Palaeolithic, Lower and Upper Upper Palaeolithic - each with several sub-stages.

In the process of perfecting this first human labor, man himself changed. According to the currently prevailing opinion in anthropology, the fossil finds from these periods are grouped into archanthropines (prehistoric humans; about 1,000,000-300,000) with the predominant species *Homo erectus* and paleoanthropines (ancient humans; about 300,000-40,000) with the predominant species *Homo sapiens neanderthalensis*. Prehistoric and ancient humans lived in limited regions of the three Old World continents and spread out. They gathered plant and animal food and hunted. Fire was used and eventually humans learned how to make it. It was used for warmth, food and later as a means of work. As a campfire, it promoted socialization and offered protection from wild animals. The social organization in the Old and Middle Palaeolithic stages is hypothetically developed and called horde, the social structure thereafter horde society (also pregentile society) [8] [26] [27: 798 ff.] [29] (cf. 2.1.4.). It was here that the significant processes of change from animal forms of society to conscious consanguineous kinship organization must have taken place. The development of labor took place during these long periods of time under the changing environmental conditions of the Pleistocene, which demanded active and passive reactions from prehistoric and ancient humans over many generations (repeated alternation of cold and warm periods in the temperate zones and of dry and wet periods in the equatorial regions; thus repeated considerable changes in the climate and vegetation zones).

The activity and satisfaction of people's material living needs, which acted as the main social driving force, is reflected in the find material from the end of the 2nd century onwards by evidence of a manifold increase in the work process. In terms of quality and quantity, the material culture was expanded (differentiated tools made of stone with retouch [i.e. worked surfaces and edges], including hand points, scrapers, etc., as well as wooden tools, most recently probably also throwing spears). Elements of the ideological superstructure (death cult) emerged. Towards the end of this period (around 40/35,000), the long process of the formation of modern humans (*Homo sapiens*) and the first developed form of human society (gentile society) came to an end (cf. 2.1.4.).

The gentile society is used to describe the archaeological material remains of the Upper Palaeolithic, the Middle Palaeolithic and the Late Palaeolithic.

Neolithic and the Early Metal Age as well as the pre-social tribes and peoples researched by ethnography, the statements on the characterization of the economic, social and ideological conditions of prehistoric society are more reliable. Gentile society [22] was the form of existence of people in exogamous social associations with common ownership of living territory and personal ownership of the predominantly individually produced and used commodities (cf. 2.1.3.). Cooperation in production, equal rights, mutual help and support in social relations were based on the blood relationship of its members and their common ownership of the main means of production. Until the formation of classes and the state, the gentile society passed through several stages, economically based primarily on gathering, hunting, fishing (also called appropriative, appropriation or occupation economy, wild prey economy) as well as plant cultivation and domestic animal husbandry (referred to, among other things, as generating, production or production economy), each in different stages of development [26]. These "primitive communities" - as Marx characterized the gentile society - were "not all tailored to the same pattern. On the contrary, their totality forms a series of social groupings which differ from one another both in type and in age and which denote successive phases of development" [MEW 19: 402].

The hunter-gatherer society (archaeological periods: Upper Palaeolithic and Mesolithic, from around 40/35,000) was based on hunting in economic and social terms (cf. 2.1.6.). The joint appropriation of the extensive hunting territory by the consanguineous kin group and the exploitation of game left its mark on all areas of life. Social organization and ideology were mainly focused on hunting. The Upper Palaeolithic period in the northern hemisphere took place under the conditions of a cold period. It was characterized by a significant increase in productive forces. Diversely differentiated, increasingly composite special tools made of stone (narrow-blade technology), wood, bone, antler, ivory, leather, hair, fibers and other raw materials were produced. Raw materials, ranged weapons made from them (javelin, harpoon, bow and arrow, bola), traps, fishing gear, rubbing stones and runners, basket and hide containers as well as methods of preservation, seasonal settlements, etc. formed a developed technical basis for the economy of hunting, fishing and gathering. The population grew and was driven to greater interaction with the environment. On the one hand, the Upper Paleolithic productive forces were further developed, and on the other, groups of hunters spread out [MEW 8: 543 f.] into previously uninhabited areas: into subarctic and arctic tundras, into primeval forests of the Old World, to America and Australia (first colonization more than 30,000 years ago during the peak of the Weichsel-Wisconsin glaciation). The rise of the oceans and the formation of desert and forest belts in the late and post-glacial periods (especially from around 10,000) isolated continents and geographical zones from each other and with them groups of people. This increased the differentiation of the *Homo sapiens* species. Humans increasingly specialized their economy according to different geographical environments and ecological conditions as well as further developed productive forces (including microlithic technology, spear fishing, boats, harpoons with lines and floats, harvesting tools, vessels and containers, extended trapping, snowshoes, bows, dogs as hunting aids). Certain groups predominantly switched to fishing, marine animal hunting or harvesting [19]. Hunting, which was practiced in different climatic zones, in steppes, primeval forests, etc., was also differentiated. Under the conditions of these different economic and cultural types [18], the basic character of the hunting economy remained the same.

Prehistoric social production was self-sufficiently oriented towards the preservation of one's own economic group (family, local group) and towards economic support within the gene (clan) and tribe based on the gentile principle of mutual help and support. Internal economic divisions resulted from the natural division of labor according to gender and age [2]. While the women were mainly responsible for gathering and harvesting wild plants and keeping house, the men were occupied with hunting, fishing and the associated production of tools. The first external divisions arose from natural differences

of raw materials and the coexistence of different [270] branches of the hunting and gathering economy. These had already led to the exchange of products and the inter-societal division of labor in the Upper Palaeolithic (cf. 2.1.2.).

The gradual domestication of cultivated plants and domesticated animals, which began at the end of the Upper Palaeolithic and continued into the Neolithic, represented the greatest economic and social upheaval in the course of human prehistory (agricultural revolution of productive forces) (cf. 2.1.8.). The transition to the production of foodstuffs as a new way of appropriating nature formed the basis for all higher economic activity and thus for all further human and social progress. The conscious, careful use of cultivated plants and domestic animals and the resulting domestic production (cf. 2.1.5.) allowed and required a planned economy within the framework of the gentile or familial household. This gave the production of primitive society a new quality.

The gentile society of farmers and cattle breeders historically formed an independent period of several thousand years of primitive society, which was only replaced by late gentile-early class society relations. Its longest phase was characterized by planting and digging (ploughless farming). Only in its last phase did the plow appear. The soil had become the direct object and means of labor. The right to common ownership of land was asserted by the settlement and village communities, which were organized under matrilineal and patrilineal law. This was the basis for the rhythm of life and thinking of the people, who were specifically dominated in all phases by the care and cultivation of plants and livestock as well as the natural processes that determined them.

Transitions to plant and animal production took place independently of each other in different areas of the world, whereby the general conditions, driving forces and laws were the same. A relative sedentariness based on hunting, fishing and harvesting as well as a corresponding population density had made people closely familiar with the living conditions of their area, from which they could hardly escape in the event of a population surplus due to geographical and historical limitations. On this basis, they were forced by the increasingly noticeable contradiction between production and consumption [MEW 13: 622 ff.] to qualitatively expand their own sources of subsistence instead of emigrating. This happened above all by taking up the production of food crops and domestic animals. Stocks of the collected plant product were used for cultivation. Simple soil cultivation, plant care and the necessary tools and methods were developed. Seeds were harvested from the best yields. These discoveries were probably mainly made by women. It is also widely believed that the care of young wild animals under the conditions of crop farming and early agriculture, and thus their habituation to humans and eventual taming, is attributed to women.

The currently oldest archaeological evidence for plant cultivation and domestic animal husbandry - subject to the still limited state of research and the uncertainty of determining plants and animals from the early stages of their domestication - is known from the Near Eastern mountainous countries and neighboring areas from around the 9th century. Here, the major environmental changes since the end Pleistocene had produced a warm temperate climate with dry, hot summers and winter rains, in which the extensive populations of wild grasses thrived and herds of ruminating cloven-hoofed animals (goats, sheep, antelopes, gazelles) provided a rich forage base. By the 6th millennium, an economic and cultural complex based on the cultivation of wheat and barley and the rearing of goats, sheep and then cattle and pigs had developed in the Near East and the neighboring Central Asian, North-East African and South-East European regions.

Autochthonous developments in plant cultivation also took place outside the Near East. Early evidence of crop farming or perhaps already of cultivation can be found from various centers in South and East Asia (since about the 9th century pumpkin, tubers, legumes, since about the 6th/4th century sorghum millet, rice) and America (since about the 8th/5th century beans, pumpkin, maize, later cotton, batata, potato,

manioc, peanuts, etc.). This plant cultivation was initially practiced without domestic livestock, was associated with hunting and fishing and only slowly gained in importance compared to gathering. In South and East Asia, the domestication of the pig, later the buffalo, and the keeping of chickens led to the development of a combined farming-livestock economy. In America, livestock farming played a subordinate role due to the lack of suitable tameable wild animals, apart from turkeys in southern North and Central America and llama farming in some areas of the Andes. In large parts of America and certain areas of the Old World, cultivation was practiced entirely without livestock farming. Further independent transitions to cultivation, but much more frequently the adoption of cultivation and animal husbandry with secondary domestication of local wild plants and animals, have occurred in many areas, e.g. in sub-Saharan Africa (yams, taro, millets) and in northern Eurasia (reindeer).

With the further development of food production and the associated considerable increase in population, the expansion of the peasant economy from all centers of origin and primary expansion areas intensified. On the one hand, clearings and internal settlements took place, while on the other, emigration took place, which was favored by economic management with slash-and-burn agriculture and forms of shifting cultivation. At the same time, hunters, gatherers and fishers also switched to plant and domestic animal production. There is archaeological evidence of various spreading currents. They reached Northwest Africa by the 4th-13th century, expanded into Europe and reached the Indus Valley in the east. Similar movements took place in South and East Asia, in Central America, in southern North America and in the Andean region between the equator and the southern hemisphere. Everywhere, suitable local wild plants and animals were incorporated into the domestication process.

The spread of plant cultivation and animal husbandry and the increase in productivity, combined with the diversity of ecological characteristics, the effect of historical substrates and other factors, led to special developments. They manifested themselves as specializations and combinations, also with older economic forms or their branches, and formed the basis of the diverse economic and cultural types [18] of agriculture and animal husbandry that developed. Of particular importance in this process from the 6th millennium onwards was the colonization of large river valleys, including the

a. the Euphrates, Tigris, Nile, Indus, Huang He, in which relatively rich gentile farming cultures developed, partly on the basis of irrigation and drainage. At about the same time, the settlement of dry areas in steppes, semi-deserts and mountains increased. In some places, their natural conditions forced them to restrict plant cultivation, eventually abandoning it in some places, and to keep goats, sheep and cattle in particular. This economic basis - once gained - led, in harmony with the ecological conditions, to the development of the

3rd millennium to the development of forms of rural pastoralism (transhumance) on the one hand and nomadic animal husbandry (pastoral nomadism) supplemented by the keeping of draught animals and mounts (horse, camel) on the other (cf. 2.1.8.).

[272] The prehistoric economic forms - hunter-gathering, farming and nomadism - which had existed side by side since the full Neolithic, and their diverse specializations and combinations had considerably increased the inter-societal division of labour. In many areas, in addition to the economic form of hunter-gathering, the land-cultivation-livestock economy had emerged, which had led to the first great social division of labor and to constant exchange [31] [36: 161 f., 167 ff.]. Engels put forward this theory and related it specifically to the state of research at the time. His statement that "pastoral tribes separated themselves from the remaining mass of barbarians" [MEW 21: 155], who according to Morgan and his view were still hunters, fishermen and gatherers at the lower stage of barbarism, is wrongly interpreted as the division of labour between farmers and cattle breeders. However, with the much later emergence of nomadic cattle breeding, the sphere of exchange was considerably expanded. Based on a constant surplus product, exchange reached such an extent since the consolidation of plant and domestic animal production that the general form of value began to emerge and with it various forms of money in kind (cf. 2.1.2.). The natural divisions of labor had developed in line with the new economic forms. The woman was primarily responsible

for the cultivation of the soil, housekeeping

and certain domestic works, the man was a hunter and a warrior, carried out rough work on the land, raised livestock and finally took the plow and the newly emerging branches of commodity production into his hands.

From the 6th millennium onwards, copper was used on a small scale in the Near East and south-eastern Europe (Chalcolithic or Kuprolithic = Copper Stone Age). The methods of metalworking (cold forging, smelting, casting, and finally alloying) subsequently joined the developed neolithic forms of pottery, weaving, wood and stone technology, construction technology in wood, stone and brick, boat and chariot building, etc., and completed the productive forces. From these branches of production, some of which were carried out in the home and some of which were specialized, emerged producing craftsmen in the transitional phase to class society with the second great social division of labour [MEW 21: 159] (cf. 2.1.5.). In the Near East, at the time of the formation of the early class society, bronze work metal (Bronze Age, from 3,000) and later iron metallurgy (Iron Age, from the 2nd half of the 2nd millennium) were developed. Neighboring primitive tribes adopted metallurgy or its products to varying degrees alongside other production advances and passed them on in turn. In many areas of the Old World, pastoral societies of shepherds, farmers and even hunters therefore acquired a Bronze Age or Iron Age character.

In prehistoric times, work and production had developed in the natural social forms of horde, tribe and genealogy. With the progress of the productive forces and the division of labor, these social forms became more and more subdivided, and the ability of the individual producer to produce and appropriate independently became increasingly decisive. Forms of cooperation and distribution within the framework of tribe, genealogy, village and extended family lost their dominant importance. The individual family producing on its own account came to the fore as an economic unit. The primitive social utilization of the surplus product in the form of services for the community was pooled by the gentiladel (chief, great warrior, priest) holding the gentile offices for the great cooperation of work (war, tribute, cult). Increasingly, larger parts of their earnings were appropriated by the members of this class for private purposes. Military democracy emerged as the highest form of the gentile social order [MEW 21: 159 f.] (cf. 2.1.7.). An increased incentive to acquire wealth promoted the [273] development of private property, initially in movables, and the exploitation of the unfree. Economic, social and political differences emerged as the basis for class formation as a result of gentile office management, ethnic overlapping and finally differences in private ownership of the means of production in the form of movables, people and finally exploitable land. This created the conditions for the abolition of the primordial social organization of gentiles and tribes, which only covered society as an empty shell, and for the implementation of political forms of organization according to economic-social status and territorial residence (shift from blood tribes to local tribes, from the gentile community to the farming community, from the gentile organization to the state) [34].

The viability of the primitive communities was incomparably greater than that of the ancient Oriental, ancient and, above all, modern capitalist societies [MEW 19: 386]. Therefore, even after the emergence and spread of class societies, primitive communities continued to exist in many areas of the world. In them, independent processes of economic and social development took place, and the clashes and conflicts between them and class societies also played an important economic-historical role for both. The causes of the decline of primitive communities stemmed from the economic conditions that prevented them from passing a certain stage of development (ibid.). Since the emergence of early class societies in the river valleys between the Nile and Huang He and during the existence of the ancient oriental and ancient European states, economic development was largely characterized by the relationships between individual class societies and primitive societies. The states exploited neighboring and even more distant primitive tribes and peoples in various forms. They traded with them, took advantage of them, robbed them or brought

tributary dependence, occupied and colonized their territories, enslaved the inhabitants and recruited warriors for mercenary services. On the other hand, the early class states were threatened by the expansionist urge of peasant and cattle-breeding tribes, especially nomadic tribes (driven by the search for arable land or pasture as a result of climatic changes or relative overpopulation, by the interest in accumulating treasures of livestock, jewelry, precious metals and other factors). They had to wage great wars against primitive societies. Individual early states were conquered and overpopulated or destroyed in the wake of prehistoric raids and plundering campaigns, whereby both higher productive forces were destroyed and new ones created.

In the clashes and conflicts during the ancient historical periods, numerous individual primitive societies were influenced with varying results. Some were destroyed, others were incorporated into higher forms of society, still others were supported in the development of their contradictions, which were beyond the primitive society, and in the establishment of their own class societies. The power of primitive tribes and peoples was particularly evident in their involvement in the revolutionary transformation of the ancient Oriental into the ancient and the latter into the feudal economic social formation.

Outside the sphere of influence of the ancient oriental, ancient and medieval states, the concrete prehistoric process of gentile hunters, farmers and shepherds continued in large parts of the world. As a result of their often extensive expansion of the sphere of production or their displacement by more advanced societies, they took possession of previously unpopulated or sparsely populated areas of the earth. Tribes of cattle breeders or farmers spread into territories of [274] hunter populations in all parts of the world (except Australia). Some hunter tribes were destroyed, others were displaced to inhospitable regions or peripheral areas of the ecumene (mountains, deserts, primeval forests), where isolation and poor living conditions led to economic stagnation and, in some cases, cultural decline. More viable gentile societies continued their development until the formation of dissolution phenomena or early states. In certain tribes and peoples, primitive pastoral nomadism developed into a class society structure. Since the High Middle Ages, economic, social and political conditions had arisen under which all backward social and economic forms were absorbed within the sphere of influence of feudal states. In parts of Asia and North Africa, these processes of assimilation or destruction of the original society took place more slowly due to the special characteristics of the pre-capitalist modes of production prevailing there.

By the 19th century, the spread of capitalism - which began in the late feudal period in the 16th century - had spread to almost all living pre-social tribes and peoples, regardless of their stage of development. The associated conflicts and their outcome constitute a significant economic-historical process of the modern era and its progression. The expansionary power of the respective capitalist economic stage (monetary system, manufactory and industrial capitalism) and the defensive power of the societies left behind, which depended on their level of development (early state despotism, gentile farmer-livestock farmer or hunter-fisher tribes), decided on their existence or non-existence under the concrete conditions of the geographical milieu. In many cases, their land was stolen, which was accompanied by extermination, expulsion or enslavement, feudal or capitalist labor dependency. Eventually, all surviving remnants of primitive communities were incorporated into the capitalist world market (even fur trappers of Siberia, rubber gatherers of Malaya, etc.). Under the conditions of socialism, primitive tribes in the north of the USSR were supported in their development and integrated into the socialist social system. Even today, processes of assimilation of population groups in late and decaying stages of their original society are still taking place (e.g. in the South American woodlands and in Australia).

Literature:

1 *Bakhta, V. M.*: in: VI 1960, H. 7, p. 59 ff.; 2. *Butinov, S. N.*: in: Trudy Instituta Ètnografii AN SSSR 1960, N. 5. vol. 54, p. 109 ff.; 3. *Childe, V. G.*: Der Mensch schafft sich selbst. Dresden 1959;

4 *Cunow, H.*: Die Wirtschaft der Natur- und Halbkulturvölker. Berlin 1926; 5. *Dittmer, K.*: Allgemeine Völkerkunde. Brunswick 1954; 6. in: Textbook of Ethnology. Stuttgart 1958, p. 208 ff.; 7. *Feustel, R.*: in: EAZ 1968 (9), p. 120 ff. and EAZ 1973 (14), p. 55 ff.; 8. *Ders.*: Urgesellschaft. Weimar 1975; 9. *Ders.*: Abstammungsgeschichte des Menschen. Jena 1976; 10. *Guhr, G.*: in: EAZ 1969 (10), p. 167 ff.; 11. *Guhr, G./Otto, K.-H./Grünert, H.*: in: EAZ 1962 (3), p. 13 ff.; 12. *Heberer, G.*: in: Studium Generale 1958 (11), p. 341 ff.; 13. *Herskovits, M. J.*: Economic Anthropology. New York 1952; 14. *Koppers, W.*: in: Anthropos 1915/1916 (10/11); 15. *Koswen, M. O.*: Abriß der Geschichte und Kultur der Urgesellschaft. Berlin 1957; 16. *Kothe, H.*: in: Die Nachbarn 1948 (1), p. 71 ff.; 17. *Krause, F.*: Das Wirtschaftsleben der Völker. Breslau 1924; 18. *Lewin, M. G./Tscheboksarow, N. N.*: in: EAF 1958 (4), p. 131 ff.; 19. *Lips, J. E.*: Die Erntevölker. Berlin 1953; 20. *Markov, G. E.*: Kočevniki Azil. Moscow 1976; 21. *Masson, V. M.*: Ékonomika i [275] social'nyj stroj drevnich obščestv. Leningrad 1976; 22. *Morgan, L. H.*: Die Urgesellschaft. Stuttgart 1891; 23. *Schmidt, M.*: Grundriß der ethnologischen Wirtschaftslehre. Vol. 1-2, Stuttgart 1920-1921; 24. *Ders.*: Die materielle Wirtschaft bei den Naturvölkern. Leipzig 1923; 25. *Schott, L.*: in: EAZ 1970 (11), p. 39 ff.; 26. *Sellnow, I.*: Grundprinzipien einer Periodisierung der Urgeschichte. Berlin 1961; 27. *Sellnow, W.*: Gesellschaft - Staat - Recht. Berlin 1963; 28. *Semenov, Ju. I.*: in: EAZ 1967 (8), p. 15 ff.; 29. *Ders.*: (*Semjonow, J. I.*): in: SW/GB 1966, H. 8, p. 879 ff.; 30. *Thurnwald, R.*: Werden, Wandel und Gestaltung der Wirtschaft im Lichte der Völkerforschung. Berlin/ Leipzig 1932; 31. *Titov, V. S.*: in: KSIA 1962 (88), p. 10 ff.; 32. *Ullrich, H.*: in: ZfA 1971 (5), p. 165 ff.; 33. *Ders.*: in: ZfA 1975 (9), p. 169 ff.; 34. *Beiträge zur Entstehung des Staates*. Berlin 1973; 35. *The Ethnological Notebooks of Karl Marx*. Assen 1974; 36. *Evolution and Revolution in the Ancient Orient and in Europe*. Berlin 1971; 37. *Weltgeschichte bis zur Herausbildung des Feudalismus*. Berlin 1977.

Heinz Grünert/Günter Guhr

2.1.2. Exchange and traffic

Exchange:

Contrary to widespread bourgeois opinion [8], trade as a form and activity of circulation of labour products through buying and selling, separated from production by the division of labour, was not practised in primitive society, but only developed on the threshold of class society. However, its preliminary forms go back deep into prehistory as the exchange of labor products in many forms [MEW 23: 99 ff.] [7] [9] [11] [12] [16] [19]. They emerged at the latest in the Upper Palaeolithic, when, on the basis of developed productive forces, the gentile groups of specialized hunters, fishermen and harvesters of wild plants increasingly consolidated their territories and natural differences in their endowment with food sources and raw materials became apparent. Raw materials were particularly sought after, especially good quality stone (flint, obsidian, etc.) or products made from it, earth colors (manganese and iron oxides, etc.), as well as rare plant raw materials (such as spear wood) and jewelry materials (semi-precious stones, ivory, shells, etc.). The collective owners of the economic territories with the corresponding deposits met their own needs through self-sufficient production and were initially able to sell any surpluses in sporadic product exchanges. Occasionally, groups of hunters (known especially from Australian and Indian gentile associations) also supplied themselves through expeditions to raw material deposits in wastelands or other tribal areas, if their owners tolerated the extraction. Gifts given or exchanged during negotiations in turn promoted exchange relationships. Animal raw materials (worked hides, sinews, etc.) and products made from them, individual tools (spears, blades, etc.) and other products (baskets, mats, etc.) as well as surplus food (meat, fish, provisions such as nuts, roots) were also included in the exchange.

The exchange took place during bilateral or multilateral contact between gentile groups (encounters, visits, festivals) through their representatives (chiefs) or between individuals. Sporadic acts of exchange (gift exchange, silent exchange, etc.) often initiated regular exchange relationships. Gift

exchange served to consolidate social relationships and

at the same time to meet needs, because the [276] gifts corresponded as far as possible to the interests of the recipient and were given in anticipation of needed counter-gifts according to the principle of reciprocity. In "silent exchanges" between collectives that were little known or unfriendly or mistrustful towards each other, offered products were placed in a prominent place that was later agreed upon by repetition, examined by representatives of the addressees in the absence of the providers and answered by placing a counter-offer. After some of the offers and counter-offers had been corrected several times - always in the absence of the other party - the exchange was either accepted or the negotiation was broken off by taking the other party's offer or one's own offer. In these and other forms of product exchange, individual objects could sometimes change hands several times and, in conjunction with trail trains, reach areas far removed from their storage sites. In the case of relatively stable tribal settlements, the differences in natural production conditions and the coexistence of different economic sectors already established inter-societal divisions of labour and fixed exchange relationships in hunter society, such as between inland and coastal local groups of the Andamanese, between mountain, steppe, forest and coastal dwellers, etc.

As the population grew in the peasant gentile society, the tribal and village territories became more consolidated, the demand for raw materials increased, the techniques of raw material extraction were expanded and the first great social division of labour [MEW 21: 155] unfolded (cf. 2.1.1.), variously specialized and combined branches of peasant production emerged alongside those of the hunter-gatherer form of production. Groups of hunters and gatherers existed as specialized producers based on the division of labour, sometimes for a long time in connection with farming societies. Increasingly, plant and animal production provided a relatively secure and thus predictable surplus product that could be brought into the sphere of exchange, among other things. In the course of this development, the inter-societal divisions of labour increased and stabilized, thus creating important conditions for the consolidation and intensification of exchange relations at the borders of the commons of collective owners [MEW 23: 102].

The interest of peasant societies in exchange was also focused on mineral resources, in the extraction of which individual groups increasingly specialized - sometimes to the neglect of food production (cf. 2.1.5.). The main barter goods continued to be good types of stone and earth colors, as well as salt, graphite and, with the emergence of metallurgy, copper, tin, lead and later iron. Jewelry materials, such as stones (callais, jadeite, etc.), shells (spondylus shells), amber, precious metals, etc., were also extracted and processed in areas of natural occurrence for the purpose of exchange. Food producers traded meat, fish, cultivated plants or forest products, including the coveted honey, as well as products of domestic labor in accordance with the focus of their production. The inter-societal division of labor that emerged from the self-sufficient production of gentile collectives on the basis of different natural production conditions gave rise to elements of commodity production. This gave rise - initially in isolated cases - to the exchange of goods between individual owners. Over time, the exchange of necessary goods such as stone, copper, tin, salt and others became a regular institution. From the early stages of primitive peasant society, it reached collectives at distances of up to more than 1,000 km in the deposits of raw materials, albeit only in modest quantities.

With the second great division of labor [MEW 21: 159], the ability [277] of individual producers to produce and appropriate independently became increasingly decisive, whereby the specialists of the gentile collectives developed into commodity-producing craftsmen (cf. 2.1.5.). Equipped with their own means of production, they intensified the exchange of goods between the collectives and carried it into the interior of the gentile organization. Despite the increase in the intra- and inter-societal division of labor and the emergence of elements of private property (cf. 2.1.3.) as the conditions of existence of simple commodity production, this - and accordingly the exchange of goods - only covered a very small, but always

more important part of the social reproduction process. Exchange boycotts or barriers for raw materials could cause disruptions in the economy of gentile tribes and trigger warlike conflicts. Nevertheless, the self-sufficiency of the producer collectives on a natural economy basis remained predominant throughout primitive society. The production of goods did not become the basis of the mode of production. The primitive societal exchange relations underwent changes when gentile societies came into contact with socio-economically more developed societies. The exchange of goods and, soon afterwards, trade developed in the border zones, where traders from the class society visited the tribal population and their representatives appeared at markets in the territory of class societies. The need for products of more advanced societies arose primarily from their higher utility value (vessels, metal weapons, tools, etc.), often from the prestige (social prestige) they conferred on their owners (foreign jewelry, ceremonial weapons and vessels, luxury clothing, statuettes, luxury foods, including wine, etc.). This interest stimulated the gentile collectives to produce the products demanded by the representatives of the more highly developed societies. It acted as a driving force for the increase in labor productivity and the development of productive forces and gave rise to new divisions of labor. The gentile societies gave food (livestock, grain, forest products, salt, etc.)' raw materials (metals, precious stones, furs, wool, collected products, etc.) and regional specialties (medicinal herbs, spices, cosmetics, women's hair, etc.). The urge for commodity relations with class society led to the sale of people into slavery by members of the gentile upper class [2: 137 ff.] [6], in addition to the theft of people by class-society slave traders. The influence of class societies could reach deep into gentile tribal areas. Amber collectors at the mouth of the Wisla, for example, traded their products to the Roman provinces more than 700 km away (Carnuntum).

Under capitalist conditions, almost all surviving gentile societies were incorporated into the commodity economy. Gatherers from subtropical jungle areas, hunters from subarctic and arctic regions specialized, in some cases suppressing their self-sufficiency, and brought rubber, gum arabic, myrrh, frankincense, furs and other products to traders, from whom they received necessary and less useful goods (alcohol) - discriminated against and taken advantage of in ignorance of the value relations. These contacts promoted the independent overcoming of primitive society; in many cases they led to its destruction.

Development of value forms:

The simple exchange of products took place according to the benefit that the exchanged goods had for the recipient, not yet according to the labor time expended. The proportional exchange relationship was purely coincidental. However, to the extent that individual products were consciously produced for exchange in the gentile society, they began to be transformed into commodities with the dual character of use value and value. In the process, "the quantitative relation in which they are exchanged became dependent on their production itself" [MEW 23: 103]. Value, the new, developing social relation, emerged in the exchange relation. The emergence of exchange value as a manifestation of value took place in turn via several forms of value, the succession of which Marx examined historically and logically [MEW 23: 62 ff].

When two isolated commodities met sporadically, the exchange took place via the individual, random or simple form of value. One commodity expressed its value - initially largely by chance - in the use value of the other. This germinal form of value development was already to be found in the original exchange of products. In the peasant gentile society, the circle of encountering commodities, which differed according to species and within species according to quantity (quantity, size, etc.) and quality, expanded. Their exchange required the total or unfolded value form, in which the magnitude of value and thus the value character of the products of labor [MEW 23: 89] was consolidated through a multitude of exchange proportions. Progressive social division of labor and the development of individual property - both of which were now primarily associated with the independence of craftsmen - brought about the expansion of the social value relation. The shortcomings of the unfolded value form [MEW 23: 78 f.] led to the

The first step was to narrow down the circle of commodities serving as equivalents and finally to select one commodity as the general equivalent. This is how the general form of value developed. The selected commodity served - albeit still unstably - as an expression of value for all others, thus becoming the embodiment of value and taking on the function of money in kind [4] [5]. It had to be as durable as possible, embody versatile use value itself and, above all, allow value relations to be expressed through differences in size or divisibility.

In its concrete existence, primitive society produced numerous local forms of general equivalents. Food products were used, especially domestic animals, fish and fish products, grain, salt, tea, etc., or jewelry materials, especially snails (cowries, etc.), corals, pearls, shells. Other regional forms of natural money were products of domestic labor or handicrafts, such as leather, furs, linen cloths, clothing, mats, etc. With the rise of metals, black, non-ferrous and precious metals took on this role. Ingots or simple implements (axes, hatchets, knives, sickles, ploughshares, fishhooks, roasting spits [oboloi] etc.), metal bowls, pieces of jewelry (rings, brooches etc.) became natural money. They could be remelted or reforged if necessary. In an advanced stage of dissolution of primitive society, often under the influence of class society, the counting, weighing and finally the standardization of natural money (shell strings of different shapes, colors and lengths, moulded salt, brick tea, sacks of cocoa beans, etc.) increased. With the increasing preference for precious metals, metals were prepared for this purpose (weight bars, notched wires) and measured with precision scales: Chopped silver, gold dust and grains (nuggets).

The languages of many peoples preserve memories of the original expressions of the value relationship. Original cattle money is reflected by etymological relationships: has. pecus "cattle" and pecunia "fortune"; Goth. faihu "cattle", "fortune", Anglo-Saxon fehugini "cattle greed", i.e. "envy", as well as English fee "levy"; Sanskrit rupa "herd", which is hidden in rupee, the currency denomination of India and other countries, and much more. Old Russian money denominations testify to furs as a general equivalent: Kuny (kunika "marten"), Bely (belka "squirrel") or Lobki (lobok "little fur"). An old Icelandic coin was called fisk "fish". Coin and currency names such as stater "weight", talent "measured", drachma "handful", as, pound and livre "pound", rouble (from rubit' "to chop off") and other terms such as stipendium (from lat. pendere "to weigh"), capital (from lat. caput - "head" of large cattle as a measure of value) are reminiscent of the state of [279] metal weighing and standardization.

"The specific kind of commodity, with whose natural form the equivalent form grows socially, becomes a money commodity or functions as money" [MEW 23: 83]. This place was historically taken by precious metals, especially gold. Strictly speaking, the transition from the general form of value to the money form only took place when gold had displaced all other particular equivalents in a certain territory and achieved a monopoly position in this social function. Its growing importance as a measure of value and a yardstick for prices ultimately led to the emergence of minted coins in ancient class society. Members of primitive societies quickly learned how to handle money in contact with class societies, but within the tribal territories it was mostly only used to accumulate treasure in the wake of social differentiation or as a raw material for jewelry. Only at a high stage of dissolution did gentile societies take over the use and minting of coins. The example of Celtic tribes, some of whom had lived in close contact with or even in association with ancient states since the 5th century BCE and were involved in their merchandise economy, is instructive. They used coins, some of which were soon also used in the tribal areas as a means of circulation, but where they formed an equivalent alongside others and were not the exclusive embodiment of value. This also applied to coins that the gentile nobility of some Celtic tribes had minted themselves from the 2nd century BCE onwards - after the influx of Greek coins had ceased [15: 99 ff]. The transition from the general form of value to the monetary form with the development of class society was interrupted by the Roman conquest of Gaul.

traffic (in general, see [3]):

Prehistoric populations were familiar with the natural paths of their habitat and recognized favourable routes by their morphology, vegetation and other features. They used riverbeds, terrace edges, border areas of soil types and similar features for their tail and migration routes and became familiar with fords and passes. With the tribal areas, such connecting routes were also consolidated, which became natural paths and entire networks of paths [3]. Settlements developed along them, some of which became centers of exchange. Connecting long-distance routes emerged from such routes, which were still important in class society, such as the "Silk Road", which connected the ancient oriental centers with India and China in several branches, or the "Amber Road", which ran from the delta of the Wisła via the valley of the Prosna to the upper reaches of the Oder, over the Moravian Gate along the Morava to the Roman city of Carnuntum and on to the northern shore of the Adriatic. Geographers of the class states evaluated all reports, especially travel notes from users of such routes, for the description of the conditions in the foreign regions and thus expanded the world view of antiquity. This is how Ptolemy's description of the earth with numerous localizations of tribes and settlements in the Germania Magna came into being around 150 BCE. Of the settlements referred to as "Poleis", however, only Kalisia, located on the Amber Road, could be identified with the Polish city of Kalisz, which retains its name. Although the construction of artificial transportation routes in primitive society was limited to work to maintain and improve natural road conditions, it did achieve a number of respectable feats. They lie in the overcoming of swampy obstacles by means of earthworks.

[280] and log dams or boardwalks and in the bridging of ravines and watercourses with various constructions. These ranged from swaying rope (liana) bridges to fixed plank bridges, some with two lanes of traffic, which were built by tribes in the break-up stage of prehistoric society mainly as part of the protection of their lake fortifications. Various tribes also built simple bank reinforcements and jetties as part of their production facilities.

Watercraft [13: 45 ff.] are known to be the oldest means of transportation. Raft, dugout canoe, bark boat and skin boat were developed by fishermen and sea animal hunters. They were propelled by paddles or oars. The sail has been documented from the Nile since the 3rd millennium [10], but was probably already known there in the 5th/4th millennium, where the frequent north wind made it possible to sail upstream. Boatbuilding produced seaworthy constructions, including oceanic outrigger and double-hulled boats and, in northern Europe, keelboats with frames and clinkered planking. Great importance was attached to land transportation after the primitive human carrying capacity (hunter's wife,

"carrier") the use of draft, pack (pack) and riding animals. Hunting peoples used dogs for transporting loads and pulling (dog sleds), especially in cold regions. Farmers and cattle breeders raised large animals for this purpose, bred species specifically for transportation and created calm, strong draught animals by castrating them. Freight transport was developed to the point of caravan transportation. Draft animals were used gradually, depending on the state of harness technology, initially for chutes and drags, later also for sledges and, in connection with the invention of the wheel, for two- and four-wheeled carts and wagons [14] [17] [18]. After the disk wheel (5th/4th millennium), the spoked wheel with hub was developed in the ancient oriental class society (probably at the beginning of the 2nd millennium) and adopted by individual gentile societies. In terms of special, environmentally bound means of transportation, gentile societies produced snowshoes of various shapes (snow tires, narrow running boards) with sticks for supporting and pushing off, skids made of bones ("sledge bones" [1]) for people and loads as well as sledges for various purposes.

Literature:

1 *Barthel, H. J.*: in: *Alt-Thüringen 1968/1969* (10), p. 205 ff.; 2. *Büttner, Th.*: *Geschichte Afrikas*. T. 1, Berlin 1976; 3. *Cole, S. M./Childe, V. G./Digby, A.*: in: *A History of Technology*. Vol. 1, Oxford 1955; 4. *Einzig, P.*: *Primitive Money*. Oxford 1951; 5. *Gerloff, W.*: *Die Entstehung des Geldes und die Anfänge des Geldwesens*. Frankfurt a. M. 1947; 6. *Grünert, H.*: in: *EAZ* 1969 (10), p. 501 ff; 7. *Ders.* in: *Von der archäologischen Quelle zur historischen Aussage*. Berlin (in print); 8.

Jahn, M.:

Was there already trade in prehistoric times? Berlin 1956; 9. *Koslow, G. A.*: Die Warenproduktion in ihren Anfangsstadien. Berlin 1960; 10. *LeBaron Bowen jr, R.*: in: *Antiquity* 1960 (34), p. 117 ff.; 11. *Masson, V. M.*: in: VI 1973, H. 1, p. 78 ff; 12. *Ders.*: in: *Èkonomika i social'nyj stroj drevnich obščestv*. Leningrad 1976, p. 73 ff; 13. *Neukirchen, H.*: Seefahrt gestern und heute. Berlin 1970; 14. *Putschke, W.*: Sachtypologie der Landfahrzeuge. Berlin (West)/New York 1971; 15. *Schlette, F.*: Kelten zwischen Alesia und Pergamon. Leipzig/Jena/Berlin 1976; 16. *Schulze-Thulin, A.*: Intertribal commercial traffic and cultural-economic development. Meisenheim a. Glan 1973; 17 *Smolian, J.*: in: *EAZ* 1964 (5), p. 1 ff.; 18. *Tarr, L.*: Karren, Kutsche, Karosse. Berlin 1970; 19. *Exchange Systems in Prehistory*. New York 1977.

Heinz Grünert [281]

2.1.3. Ownership structure

All statements about property relations in prehistoric society before the Upper Palaeolithic, for which no comparative ethnological material is available, are only assumptions based on retrospective conclusions and theoretical considerations [8].

In prehistory, in the course of the long-lasting process of human evolution, ideas about property may only have emerged when increasingly conscious actions determined the increasing labor activities. Among the ancient human hordes of the late Middle Palaeolithic, the awareness of the primal forms of property had probably come to the fore: relationship to land, instrument, food [MGr 399]. The occupation of the Horde territory had been recognized through its common defence against foreign hordes. It formed the basis for the ownership of the general means of labor of all members. The few means of labor and weapons were produced by the individual and thus also appropriated and used by him [MGr 375 f., 385, 391] [MEW 21: 155]. The campsite and campfire were certainly communal affairs in the care of the horde elders (cf. [1: 359 ff]).

In the hunter-gatherer society of the Upper Palaeolithic, clearly recognizable property relations developed. Communal and personal property emerged particularly because of the gradual increase in the means of production and consumption. The stronger socialization caused by exogamy and increased labour activities resulted in a clear recognition of the gentile group by its territory and its natural resources through the recognition of natural boundary markers (river, mountain, single tree or rock, forest edge, etc.) by neighbouring communities [19: 43 f.] [26: 187 f.] [29: 2 f.] [31: 11 f.]. In the case of related groups, a regulated neighborly relationship led to the seasonal mutual use of hunting and gathering grounds and raw material deposits. When there was an abundance of food, the ancestral genetic group invited both neighboring and more distant groups, even hostile ones, to eat together [21: 17 f., 35 f.] [26: 55 f., 110 ff.]. When game or fruit was plentiful, large communal hunting and gathering parties were organized. Their proceeds were used to support temporary tribal associations and festivities for the purpose of initiating and settling many other community matters. The awareness of the tribal territory developed [29]. Raw material deposits (quarries, certain wood deposits, red chalk, salt, etc.) were exchanged by the owner tribe or used by strangers in return for goods or services [6: IX f.] [16: 395] [31: 87]. The objects that were exchanged in product swaps were usually the personal property of individuals.

The communal principle or communism of the hunter-gatherer gentile organization arose naturally and was based on the necessary common provision for life, which could not be abolished due to the primacy and imperfection of the productive forces. It was consciously practiced by the gentile groups in that every individual or partially cooperative work was considered part of the original collective work. The individual member was, of course, co-owner of the gentile territory on the basis of his kinship to the gentile or co-user of the gentile territory on the basis of his kinship to the gentile [MGr 376, 389 ff]. They directly appropriated the self-produced product, took tools, equipment and weapons into personal use and

gave of food to the community or family [282], took in turn from the earnings of others and the community [MEW 21: 155] [21: 35 f.] [26: 244 ff.] [29: 4 f.]. Constant give and take was one of the outstanding property principles of primitive society at all its stages of development. If natural foods were more abundant or more scarce, then a denser population lived close together or a smaller population lived far apart, which is why ownership of the communal gentile territory took place in different ways. The economic units or households could range from the temporary unification of entire tribes to dispersal into individual families.

The personal ownership of weapons and equipment differed for men and women at all stages of primitive society according to the gendered division of labor. While at this stage the woman possessed the lesser equipment with a digging stick and collecting and carrying containers made of net, basket or wood, possibly a rubbing stone and runner, the man as hunter and trapper was equipped with bow and arrow or spear and thrower, harpoon, club, sling, stone knife, lighter [19: 9 ff.]. The use of hunting weapons, which were also war equipment, gave the male side of the gentile and tribal communities a real position of power over the female side. Larger pieces of equipment, such as fishing nets or fixed animal traps, belonged to the hunter group together. The woman owned individual huts or windscreens, which she had to erect, while the local group owned communal huts. The simple clothing made of fur or cattle bast was often made by the women. The fire for the individual fire of the small family was also taken from the fire in the care of the camp elder. As everyone made their own personal items, there was little point in bequeathing them. The camp, hut and personal belongings of the deceased were often abandoned or even burned. Particularly valuable items were passed on to the next male or female descendants in the gentile group [3: 239] [19: 69 ff.].

With the partly sedentary fishing and harvesting economy as well as the developed hunting of marine animals, the ownership of equipment and dwellings increased. This increase shows an essential development of property in primitive society, which also continued in the progressive stages [18: 453]. The previous tools and weapons were joined by a variety of harvesting, fishing and processing equipment such as heavy harpoons, fishing rods, fish traps, fishing fences, landing nets, trough frames, harvesting baskets, stacking containers, mortars, the boat, which depending on the type was an individual or communal boat and thus individual or communal property, the dog as helper, sledge, snowshoe and transportation loop, the more stable hut and the simple house [13: 197 ff.] [14: 41 ff.] [15: 158 ff.]. Fixed house, fishing and harvesting sites made the family more prominent as an economic unit. The valuation of land in the territory shifted in favor of suitable fishing and harvesting areas, some of which were located in foreign tribal areas [13: 167 f.] [33: 72 f.]. The tribal or gentile community fishing or harvesting yield was distributed among the family households and stocks were built up by them. In some cases, the families took possession of and used certain fishing grounds, harvest fields or fruit tree locations in the gentile area separately. Surplus yields from individual clans or families formed the temporary basis for wealth in food and material goods. [13] [14: 66 f.] [15: 3 ff., 247 ff.] [33: 69 ff., 110 ff.]

The emergence of land cultivation and animal husbandry caused significant changes in the territorial ownership of primitive society. While the hunting primitive society took possession of the gentile or tribal territory via the hunting animal and exploited it extensively, its use was restricted under the conditions of soil cultivation. [283] Clearing, tillage, planting and peasant cattle breeding took certain pieces of land from the hunting grounds. The natural appropriation of the land was carried out by the farmer via the crop. The specialized cattle breeder or nomadic herdsman took possession of the pastureland and thus the soil via the herd. The cattle-breeding form of production did not tolerate hunting animals and hunting in the immediate production area, and it also excluded itself from arable farming. These three forms of production technology for the occupation of territory and land were at the same time stages in the development of prehistoric society.

economy and differed economically and socially as different forms of ownership of the original society [MGr 386, 390, 393 ff]. They were mutually exclusive as determining modes of production, but could exist together symbiotically or through a division of labor in combined economic forms [17] and produce different types of economy [32].

With the peasant village patch (communal settlement, fields, farms, houses), land ownership developed, which became more and more legally consolidated with increasing sedentarization. The gentile territory, which was common property [MEW 8: 501] [16: 414 ff.] [34: 95 ff], was now divided into three parts: village with houses and farms, cultivated land, remaining common land. House and farmsteads were the property of the community that had established them and often used them for generations, such as clan, clan part, extended family, multiple or single family. The family farmstead became the first source of private ownership of land [MEW 19: 404]. The fields were divided up according to the needs and possibly the earnings of the units cultivating them and were owned by them, for example by the clan group of a village or by extended or individual families. Usually, each individual woman had her own field and disposed of its yields; livestock was also personally owned [2: 66] [34: 93, 97]. Fields were redistributed and reallocated, and often remained in use by one family for generations [30: 219 ff.] [34: 97]. Due to the communal principle and mutual help, the heavy work was carried out from the outset in cooperation or in communal work groups with the individual owners [2: 41] [16: 416]. The harvests went to the individual households [5: 102 ff]. The remaining areas of the communal gentile territory were directly communal land, on which hunting, fishing and gathering were practiced as secondary trades and livestock was also kept. As the village settlement system consolidated and new settlements were founded more frequently, the gentile village community formed as owners of the village and clan lands. Each member, each family had a claim to the use of the land, and the founding family of the village had special duties and rights resulting from the initial claim arising from work; this may have given rise to the first internal economic and social stratifications [24: 34 ff.] [30: 207 ff.] [35: 27 ff., 131 ff.]. As a result of the family economy, the parts of the clan and village land used for cultivation by large or individual families remained in their possession according to tradition. Its use had become hereditary; if the family line died out, these parts reverted to the community. For example, if a man planted a fruit tree on the fallow land of another, he retained the right to the tree and its yield [1: 366] [30: 219 ff.] because the land was the common property of the clan.

According to the pre-social law of appropriation, women came to the fore economically as planters and were highly valued as workers. The equal role of the maternal clan eventually developed into a mother-legal planter culture and matrilineally inherited gentile territory. The **[284]** women became the bearers of the economic unit and the family household [1: 367] [16: 415] [18: 59 ff., 462]. The paternal gene had a stronger effect in the case of warlike conquests and the theft of women by other tribes [24: 52 f.] or in the combination of farming with hunting or cattle breeding [17]. In the further development, the man's work and claims to power became more prominent (large-scale clearing, extensive plowing of the land, ploughing, cattle breeding) and the patrilineal culture of agriculture and cattle breeding with the sole patrilineal inheritance of the gentile territory.

Family property as a form of pre-social common property and personal property had become richer in accordance with the increased means of production and consumption. Above all, the combined farming-livestock economy was characterized by Neolithic stone tools, pottery products, spinning and weaving articles, weapons of various kinds, wood and farming equipment, harvesting and storage containers and transport facilities, more stable houses, clothing, jewelry, cult implements of various kinds, and much more. Women, but also the occasional slave at this stage, were considered the personal property of the owner. Self-produced shares in crop and livestock production or consumer goods could be used personally by the married half. It could be passed on to personal heirs, in the exchange of goods or in

Gift feasts were given. In the case of inheritance, the widows fell to the heirs [30: 223 f.] [34: 112 f.]. With exchange and the development of value, the wealth of goods, jewelry, livestock, women, etc. had also become a real wealth of the clan, the family and the individual. Such personal movable property was one of the sources of private property [24: 54] [34]. Livestock belonged to the peasant economic units and households, with breeding, though not always the care, being the responsibility of the man. The utilization of livestock was usually subject to the rules of distribution in the gentry community. As a special value, it often benefited the whole community at feasts, funerals, harvests, banquets and the like. The animals were grazed on the common land of the community, gens or tribe. The number of animals owned by a man or his family was regarded as an important indicator of wealth (money in kind) (cf. 2.1.2.). Chiefs and other leading figures were the wealthiest and had to provide services to the community. Those who possessed the most also had the most to give to the community. This was associated with social prestige and a high social position. A rich head of a family or clan could afford several wives, whose share of the work increased his wealth. He also encouraged his clanmates, perhaps dependents or slaves, to contribute to the wealth of the extended family or clan with livestock, material objects of value and labor [22] [24: 54] [30: 207 ff.] [34].

Ownership among the gentile cattle breeders and nomads was also based on this peasant ownership. The entire tribal territory was communal property due to the large expanses of grazing land required. In functional terms, gentile territories were more likely to grow together or be formed into tribal property than in the case of farming tribes. The interpretation of some researchers that the herding territory was boundless and that the nomads had no territorial property is a misconception. The tribal territory could be subdivided by the use of certain areas by individual sub-tribes or clan groups. Depending on the vegetation basis, certain zones of the tribal territory were used at different times (e.g. summer and winter grazing or vertical movement in mountainous areas) [11: 8 ff.] [28: 32 f.]. In some cases, limited landscapes were regarded as territories of individual groups, in which they exercised the preferential rights of owners, but not the **[285]** exclusive rights. This was particularly true of the vital water points in steppe and semi-desert areas, which, although belonging to these local groups, could be used by the whole tribe, and sometimes even by neighboring tribes in return for services or payment. Under the later conditions of wealthy nomadic chiefs, lending cattle to impoverished fellow tribesmen and the occupation of water points were one of the main sources of dependence and exploitation of their own, originally free fellow tribesmen [10: 46 ff.] [28: 129 ff.].

Livestock such as horses, camels, sheep, goats, yaks, cattle and donkeys were partly the common property of family groups and individual families and partly the personal property of individuals, in accordance with the gentile rules of acquisition and appropriation. Marks of ownership were often brands that identified tribal or family groups [17: 163 f.]. Usually every nomad knew his animals. The hereditary division and passing on of the father's herd to the sons represented a realization of the family's common ownership of livestock [17: 28, 195] [23: 106 ff.]. Grazing and protection of the animals took place under appropriate ecological conditions in the association of larger herds (tribal, family group), which, like the tribal territory, were in the care and under the protection of the whole tribe. Cattle rustling had become a common way of acquiring property. Occasionally, certain herds were regarded as communal herds of the tribe, a circumstance from which the former gentile ownership of livestock is inferred [20]. Among the nomads, the constant expansion of the herds was considered a social duty. Such wealth as a form of treasure and significant movable property was one of the sources of later private property. It was mainly acquired by gentiles and tribal chiefs, who used it to enhance their social standing. At the same time, it was used to entertain guests and to furnish tribal festivals [28: 136]. Livestock and individual tools were available in exchange for agricultural produce. The elevated patriarchal position of the head of the family made it possible for less propertied

relatives to work on the larger herd, soon also slaves or hired shepherds [17: 30 ff.] [28: 131 f.]. The material means of production and consumption such as riding, driving and transportation equipment, vessels, tools, tents, yurts, etc. were the family or personal property of those who produced or used them.

High productivity and the possibility of accumulating wealth made constant overproduction for the purpose of accumulating wealth an institution among the gentile farmers and cattle breeders, which had its particular expression in the merit system. Competition developed between the individual gentile and family heads. Whoever produced the most food, livestock, commodities and, above all, valuables (money in kind) with the help of their immediate family and relatives could achieve a higher social status at a feast of rank, a funeral, a harvest festival or similar. In this way, the community recognized his achievements, which consisted of feasts, the destruction of livestock and other valuable objects and gifts to the participants of the feast, which were lower or higher according to their social status. Such feasts of merit, at which the giver usually gave away all wealth for a higher social rank of open or exclusive societies, constituted an exploitation of a pre-social nature. An extensive system of loans had been developed to support the acquisition of wealth. Ownership of jewelry, ceremonial weapons, pigs, etc. was lent to a future feast giver in return for a fifty or one hundred percent premium [4] [5] [22] [34].

The wealth of movable property produced in gentile garb was soon used for [286] private exploitation: Creation and maintenance of a following, warfare to acquire wealth (cf. 2.1.7.), acquisition of many working wives or slaves, securing a monopoly over marriageable women, creation of personal insignia of power, deification and caste segregation, erection of glorifying cult buildings, operation of special handicraft production for private trade. This productive utilization marked the beginning of the actual transition to exploitative private property. These progressive processes in the class of rich gentile heads also transformed production and society as a whole, and thus tradition was broken with tradition [MEW 21: 60]. The recognized tribal and clan leaders became patriarchs and despots in control of property [MEW 23: 252] [9: 108 ff.] [12: 10 ff.]. Over the cultivated land, which remained common and communal property in the periods of the early class societies, the lordly disposal and the compulsion to pay taxes began [9: 126]. The special family ownership of land was consolidated and land grants of a private nature began. Later, gentile blood ties no longer played the dominant role in the village, a situation that Marx characterized with the term agrarian commune [MEW 19: 386 ff.]. From the tribal or gentile common land, used for hunting and grazing, special property was subsequently carved out by economically and socially powerful people and used as a reward for military service, to increase the size of their own economy and so on. Family property and special rights to common land were later the starting point for private ownership of land by a newly forming social aristocracy [MEW 8: 500 f.; 21: 162] [12: 15] [16: 423 ff.].

Literature:

- 1 *Birizet-Smith, K.*: Geschichte der Kultur. Zurich 1946; 2. *Dittmer, K.*: Allgemeine Völkerkunde. Braunschweig 1954; 3. *Eylmann, E.*: Die Eingeborenen der Kolonie Südaustraliens. Berlin 1908; 4. *Friedrich, A.*, in: Völkerforschung. Vol. 5, Berlin 1954; 5. *Führer-Haimendorf, Chr. v.*: Die nackten Nagas. Leipzig 1947; 6. *Greenway, J.*, in: The Anthropologist looks at Myth. Austin/London 1966; 7 *Guhr, G.*, in: EAZ 1969 (10); 8 *Ders.* in: Jahrbuch des Museums für Völkerkunde Leipzig. Vol. 28, Berlin 1972; 9. *Karsten, R.*: Das altpueruanische Inkareich und seine Kultur. Leipzig 1949; 10. *König, W.*: Die Achal-Teke. Berlin 1962; 11. *Ders.* in: Hirtennomaden und Viehzüchter. Leipzig 1973; 12. *Krämer, A.*: Die Samoa-Inseln. Vol. 1, Stuttgart 1902; 13. *Krause, A.*: Die Tlinkit-Indianer. Jena 1895; 14. *Krause, F.*: Die Kultur der kalifornischen Indianer. Leipzig 1921; 15. *Lips, E.*: Die Reiserntete der Ojibwa-Indianer. Berlin 1956; 16. *Lips, J. E.*: Vom Ursprung der Dinge. Leipzig 1951;
- 17 *Merker, M.*: Die Masai. Berlin 1904; 18. *Morgan, L. H.*: Die Urgesellschaft. Stuttgart/Berlin 1921; 19. *Nippold, W.*: Die Anfänge des Eigentums bei den Naturvölkern und die Entstehung des

Private property. Gravenhage 1954; 20. *Peršic, A. I.*: in: SE 1955, H. 4; 21. *Petri, H.*: Sterbende Welt in Nordwest-Australien. Brunswick n.d.; 22. *Rivers, W. H. R.*: The History of Melanesian Society. Vol. 1-2, Cambridge 1914; 23. *Schinkel, H.-G.*: Haltung, Zucht und Pflege des Viehs bei den Nomaden Ost- und Nordostafrikas. Berlin 1970; 24. *Schmidt, M.*: Die Aruaken. Leipzig 1916; 25. *Schmidt, W.*: Das Eigentum auf den ältesten Stufen der Menschheit. Vol. 1-3, Münster/Westf. 1937-1942; 26. *Schott, R.*: Anfänge der Privat- und Planwirtschaft. Braunschweig n.d.; 27. *Sellnoze, W.*: Gesellschaft - Staat - Recht. Berlin 1963; 28. *Stein, L.*: The Šammar-Ġerba. Berlin 1967; 29. *Strehlow, C.*: Das soziale Leben der Aranda- und Loritja-Stämme. Vol. 1, Frankfurt/M. 1915; 30. *Tessmann, G.*: Die Pangwe. Vol. 1-2, Berlin 1913; 31. *Thomson, D. F.*: Economic Structure and the Ceremonial Exchange Cycle in Arnhem Land. Melbourne 1949; [287] 32. *Thurnwald, R.*: Die menschliche Gesellschaft. Vol. 1, Berlin/Leipzig 1931; 33. *Treide, D.*: Die Organisierung des indianischen Lachsfangs im westlichen Nordamerika. Berlin 1965; 34. *Vicedom, G. F.*: Die Mbowamb. Hamburg 1943; 35. *Zell, R.*: Ent- wicklungsformen der Territorialgemeinschaft in Vietnam im 19/20. Jahrhundert. Berlin 1973.

Günter Guhr

2.1.4. Company forms

With the archaeological remains recovered by prehistoric archaeology, there is no direct source material available for the study of prehistoric human societies. Only the parallelization of ethnographic reports of various stages of development with Upper Palaeolithic, Neolithic and Metal Age findings allows the actual investigation of primitive forms of society with the sources of ethnology. Many concepts, systems and descriptions of the development of social forms come from this science [12]. For the Early and Middle Palaeolithic, for which only archaeological sources are available, auxiliary constructions are necessary to recognize the forms of society. These consist of the cautious transfer of forms of coexistence "upwards" from animal sociology, especially the behaviour of apes, and "downwards" from the consanguineous organizational principles of prehistoric tribes. This way of working could only be applied from the second half of the 19th century, when zoology and ethnology were fully developed [MEW 21: 40 f., 474 ff.]. However, the question of the beginnings of human society had been posed long before that, because its answer always served to justify existing social relations and forms of property and to consolidate their existence. Forms of organization known historically and in the present have served to answer the question of the primal forms of society, which was and is always linked to the ideological conflict, for example between the representatives of the ruling class of the feudal nobility and those of the rising bourgeoisie or the bourgeois and Marxist ideology or the clergy and science. The concepts and systems of original social forms used and presented today were formed in various stages of research, from which they are best understood.

Even the early Enlightenment contrasted the natural right of the individual with the right of the aristocracy. This right was sociologically based on the natural state of man, which was a logical abstraction from the basic structures of the early bourgeois market and commercial society [23: 34]. The individual was placed at the beginning of human development (Rousseau, Hobbes). In economic theory, Smith and Ricardo described the united savage as the primeval hunter and fisherman, his weapons and tools as private bourgeois property [36: 131] (critique [MGr 5] [MEW 23: 90]). The abstract constructions were soon contradicted, and based on the knowledge of primitive peoples called savages or barbarians, life in groups, hordes or societies was assumed at the beginning of humanity [2: 21, 24] [8: 481]. The important model was Aristotle (Politika 1253a 18 ff.), who had logically identified society as the earliest state of mankind. The first comprehensive developmental schemes, which arranged the [288] previously recognized stages of development and social stages, were found with savagery, barbarism, half and full enlightenment [24: 16 f.] or with savagery, patriarchy, barbarism, civilization [4: 29 ff.].

Historiology followed the biblical legend of creation and saw the beginning of human history as consisting of the original parents Adam and Eve, the individual family, the patriarchal principle and the family extended to the tribe. According to these foundations of the organic theory of the state, family, tribe and state were regarded as a natural series of growth and development [32: 205]. Family life was used to characterize the natural and primordial social condition of man [2: 24]. The patriarchal relationship in which the family had developed into a tribe or people was conceived as a state of transition. It went beyond the natural bond of its foundation, i.e. consanguinity. In the patriarchal tribe - modeled on the ancient Israelites - family, society and state still formed a unity [9: 118 f.]. In their first sociological works ("German Ideology", 1844), Marx and Engels followed the views of the family and patriarchal tribal system and placed tribal property as a form of common property on the level of hunting and fishing, animal husbandry and agriculture [MEW 3: 22]. From 1853 onwards, Indian and other studies of the Orient led them to distinguish more clearly between tribalism on the one hand and antiquity and feudalism on the other, and to replace patriarchalism with the Asiatic or Indian community or the Asiatic mode of production, in which the dissolution of tribalism took place [MGr 376] [MEW 9: 129 ff., 220 ff.; 13: 8]. This gave rise to Marx's theory of the agrarian commune [6]. Marx and Engels later adopted Morgan's theory of gentility.

Modern research into primitive social organization began with the studies of Bachofen [1] and Maine [19]. Both took known conditions as their starting point and progressively constructed sequences of stages that progressed from simple to more complicated social forms. Maine, starting from Roman law and the Old Testament, used only the Indo-European peoples for comparison, which is why he depicted the prehistoric stages as organized by patriarchal law. From the primitive individual family at the beginning, the gene, then the tribe and finally the state developed through the natural growth of the population. By comparing the social relationships of peoples neighbouring the Greeks with those found in Greek mythology, Bachofen discovered mother-right relationships before the historical father-right of antiquity, which led to a revolution in the previous prehistoric social picture. The lowest stage of development was hetaerism with conditions of promiscuity and an original communism. A revolt by women brought about maternal law with the family and property, which developed into gynaeocracy in the family and then in the state, which was finally overthrown and replaced by paternal law. The well-known Oresteia trilogy by Aeschylus was used as essential evidence of the transition from maternal law to paternal law. The first specifically ethnological theory by McLennan [22] introduced concepts such as exogamy, endogamy and totemism. From primitive tribal groups ("stock groups") of a promiscuous character, the development proceeded to exogamy, matrilineal law and single marriage, which was introduced due to the lack of women and wife-stealing. Secure paternity, encouraged by the growth of private property, established father rights. Lubbock created the term "communal marriage" [18], according to which all men and women in a community were married to each other. It represented the original state of marriage and was [289] understood as promiscuity, sometimes also as prescribed marriages of entire groups or classes with one another. According to this group principle, the development from a closed social unit with promiscuity to successive splitting into halves, then into quarters and eighths and so on, until finally to single marriage, is said to have taken place (cf. [29: 160 f.]).

These foundations were laid (see also [MEW 21: 474 ff.]) when Morgan [25] [26] discovered and described the role of human kinship systems and the exogamous kinship organization. He called this organization gentile organization [26] after the early Greek and Roman kin grouping (genos, gens). It is also named after the Scottish clan or the Germanic clan. He distinguished between two basic forms of social organization. According to his periodization, the original one began to develop around the middle stage of savagery, persisted through all stages of barbarism, was gentile and, according to

people were organized. This corresponded to the so-called ganovanic-turanic kinship system associated with exogamy. He called this primordial society *societas*. The later, historical society, which began with civilization, was organized politically and according to land area, was based on private property and formed a state. He referred to it as *civitas*. In the *civitas*, the kinship system lost its function of organizing society and took on a descriptive character on the basis of the monogamous family. Marx and Engels incorporated this fundamental insight into their theory of history. [MEW 21] [43]

In the 100 years since Morgan's description of gentile society, many additions and corrections have been made to the kinship systems and the forms of consanguinity organization [16] [17] [21] [27] [28] [30] [37] [38] [40] [41] [42]. The knowledge of kinship systems has been further expanded and numerous genus organizations have been described. However, Morgan's basic results have retained their validity, which is why a summarizing presentation today must still be based on his analysis of the Iroquoian gentile society and the so-called Ganovan-Turanian kinship system (Iroquoian [27]).

The situation is different with the reconstruction of the developmental stages of the family, in which Morgan closely followed the findings of his predecessors. He had traced them back to the very beginning of human history, which is why the family forms also formed pre-gentile primal forms of society. He explained the contradiction between the group character of the kinship terms and the single mating practised in the majority of the tribes he studied with the thesis that the nomenclature reflected an older state than the marriage form because it had changed more slowly than the latter [26: 337]. From this he believed that he had established the supposed law of the ever-widening circle of possible marriage partners. From a state of the horde with promiscuity, the development is said to have initially taken place towards the so-called consanguineous family, which only allowed marriage within the same generation. Because of harmful inbreeding consequences, marriage between brother and sister was banned, giving rise to the group family, a society based on gender. Ignorance of individual paternity is said to have led to the organization of these first family and social forms according to maternal descent. In the group family, the preconditions for the emergence of exogamy and thus the gene were formed, which meant that family and primitive society no longer coincided. The mating family and later the patriarchal family emerged as forms without special kinship systems, from which the monogamous family developed, which became characteristic of the final stage of the gentile society and civilization (for criticism see in particular [17] [41] [40], new points of view [7] [21]). Because the prehistoric forms of society before the gentile society can only be conjectural [34], Morgan's developmental picture remains a logical possibility despite ethnological errors, as do more recent hypotheses, such as the thesis of the harem family [35] or the promiscuous herd [3]. However, all sociological considerations are contradicted by the frequently put forward view of a created small single family, which is said to have stood at the beginning of prehistory as a primal family and primal state [13] (cf. also [21] on the nuclear family).

According to the retrospective recognition of the ethnological material up to the Upper Palaeolithic, the gentile organization existed over periods of hunter-gatherer-fishermen, of soil farmers and cattle breeders, of the original nomadic stage up to the developed peasantry with the beginnings of craftsmanship and social stratification - including patriarchal slavery. Its socially organizing and regulating role changed according to these economic stages. It emerged with exogamy, which excluded the marriage of brother and sister. According to the current state of research, the horde society that preceded Morgan is referred to as the pre-Gentile period [25] [26]. The assumed original matrilineal order of the gentile society (cf. [14: 116]) is no longer advocated today because the hunter tribes did not know such relationships [27: 186] [42: 74 ff.]. Gens, phratries and tribes, which form an "organic series", are regarded as the organizational forms of gentile society. According to the

As the population grew, a gentile society could be expanded through the formation of new gentes, phratries and even the splitting off of new tribes. The unification of originally related tribes into tribal confederations, which Morgan had been assuming since the lower stage of barbarism, was based on the blood relationship of their gentes and on the contract, a moment of later political society. Morgan described the Bund as a gentile organization advanced to military democracy [26], whose principles Marx and Engels agreed with in particular [MEW 21: 159] [43]. As a constitutional body, this type of gentile society possessed the permanent army commander (germ of the executive) in addition to the gentile assembly (germ of parliament) and the council of chiefs (germ of a government). Finally, the fusion of the tribal population united in the confederation led to the people or "nation" [26].

The gens (clan, sept, clan, gender, etc. [MEW 21: 127 ff.]) formed the basic cell of gentile society. It was organized on communal territory according to the principle of descent as a maternal or paternal line and according to certain rules of external marriage of its members. Depending on the matri- or patrilocality, those able to marry usually had to leave their ancestral gentile group, i.e. their local group (hunters), camp community (nomads) or their own village (farmers). Relationships of descent and marriage formed important economic ties that obligated people to pay various taxes and provide assistance within and between the gentile local groups or villages [33] [40]. As the external laws were determined by the nomenclature of the kinship system, this extended beyond the individual gene and encompassed an entire gentile association or a tribe of the same dialect. The group character of the terms indicated that the respective marriage of a single couple or a polygynous or polyandrous union was only the realization of a presupposed union of two, three, four or more gentes. Marriage, along with descent, was the decisive means of social formation [5: 159 ff.] [30] [40: 167]. The Gens could never exist for itself without losing its specific character, which was determined by exogamy. It was never a family, because the family was formed from partners of two different gentes, moities or marriage classes. During the period of gentile society, the family was generally a mating family, but could also have a polygamous or gerontocratic character [30] [31]' took on patriarchal traits with the formation of private property. The question of the cause of exogamy has given rise to various hypotheses, ranging from predatory marriage to economic exchange. According to the view that a natural brother-sister avoidance had existed in the mother-child family since time immemorial, this avoidance principle expanded the small group into larger exogamous communities as the family group grew [10] [15]. The explanation for exogamy does not have to be taken from the family [21]! Essential for its sociological function was the compulsion to make neighboring groups related to each other, thereby establishing peaceful and economic relationships within a larger social association. The simplest form of external marriage consisted of two gentes marrying each other, which, when they expanded and multiplied, divided the whole tribe into two halves (moities). Morgan used the Greek term phratry to describe the original "mother genes". This dual organization divided the tribes according to complementary dualisms. Exogamy made it possible to incorporate further social groups - for example through unilateral or double bilateral marriages - and to expand the gentile union and the tribe. Affiliations gave rise to corresponding sub-teachings (sections, subsections, phratries).

Geographical, economic and specifically historical reasons determined the way in which the gens settled locally. Morgan [26] was not particularly concerned with the local and territorial community of the gentile organization, because he justified the consanguineous society and its constitutional bodies as a qualitatively separate society ([11] defends him against reproaches). Usually, the members of a gene and their respective spouses formed residential and settlement communities and thus economic units and households while being aware of their ancestral territory. Residential and settlement communities - although family-based - therefore always had a gentile character. For ecological and economic reasons, an entire gene could settle together with its partners or disperse widely, for example in family groups or hamlets,

Shepherd bands, in extreme cases down to the individual family. Social regiment and personal property were passed on from the men to the male descendants and from the women to the female descendants. For this reason, matrilineality included the male line (from mother's brother to sister's son) in addition to the female line (mother-daughter) and patrilineality included the female line (from father's sister to brother's daughter) in addition to the male line (father-son). Blood revenge, mutual help and common defense, naming, adoption, recognition or election of a gentil head or council, gentil cult and participation in the tribal cult, possibly a common burial place confirmed the gens as the basic social body of the tribe. Morgan therefore also referred to it as *the* primal society (cf. [26: 318]).

The village community developed along with the rural settlement. It had common ownership of the land and regulated the affairs of its members in a natural way. With the disintegration of the kinship-gentile connection and the emergence of the family economy for private account, which was often carried out by the patriarchal extended family, its internal structure changed. [292] The village community retained direct ownership of the common land or even significant remnants of it; the arable land became the property of the families, for whom the principle of neighbors gradually emerged. They were still of traditional origin and were already organized together on the basis of contractual agreements and regulated their external affairs jointly. At the end of primitive society and at the beginning of state society, this communal system formed a general developmental path of social forms. [MGr 375 ff.] [MEW 9: 171 ff., 220 ff.; 13: 21; 23: 92] [20], also [39: 248 ff.] Marx later referred to it with the term Ackerbaugemeinde [MEW 19: 384 ff.] [10: 128].

The dialectics of social existence and its developmental process set out by Marx and Engels is decisive for recognizing the social forms of the Horde and Gentile periods [MGr 27, 375 ff.] [MEW 3: 20 ff., 60 ff.; 21: 27 f., 152 ff.]. All social development comes from natural growth. At every stage of prehistory a natural polity must be presupposed, whatever form it may have had. A hypothetical horde stage must therefore be developed on the basis of natural institutions: Mating, mother-child-family, protection of mother-child, external protection of the horde, population size and horde size according to ecological conditions as well as geographical or territorial boundaries, realization of dominance and similar factors. Factors. Into this natural growth, which itself changed with the progressive development of mankind, the organization according to work gradually became more and more important, and production relations unfolded. Initially functioning in the guise of blood kinship organs (close hunting bands, sexual division of labour, distribution to relatives by marriage, tribal cooperation in large hunts), it slowly detached itself from them (e.g. exchange of personal property, private economy of the family, special ownership of land, wealth generation for private exploitation) and finally determined the forms of society. At the end of primitive society, society was organized according to private property, territorial division (local tribe, village community, province), professional castes, etc. in a political community. The dual nature of production, the production of food and the production of people, determined the social institutions. The primitive forms of society were initially determined by the production of people through the familial means of descent and marriage. However, institutions and forms that arose from the production of food eventually prevailed. The institutions and social forms resulting from sexual and family relations subsequently lost their character of determining social organization [MEW 21: 473 ff.]

Literature:

- 1 *Bachofen, J. J.*: Das Mutterrecht. Stuttgart 1861; 2. *Ferguson, A.*: Abhandlungen über die Geschichte der bürgerlichen Gesellschaft. Jena 1923; 3. *Feustel, R.*: Urgesellschaft. Weimar 1975; 4. *Fourier, Ch.*: Theorie der vier Bewegungen und der allgemeinen Bestimmung. Frankfurt/M. 1966; 5 *Guhr, G.*: Heirat und Verwandtschaftssystem bei den Aranda, Berlin 1963; 6 *Ders.* in: Jahrbuch des Museums für Völkerkunde Leipzig. Vol. 28, Berlin 1972; 7. *Ders.* in: Entstehung des Menschen

and human society. Berlin 1978; 8. *Günther, F.*: Die Wissenschaft vom Menschen. Gotha 1906; 9. *Hegel, G. W. F.*: Lectures on the Philosophy of World History. Vol. 1, Berlin 1970; 10. *Hellwald, F.*: Die menschliche Familie. Leipzig 1889; 11. *Hildebrandt, H.-J.*: Einführung in: L. H. Morgan, Die Urgesellschaft. Lollar/Lahn 1976; 12. *Kabo, V. R.*, in: EAZ 1976 (16); 13. *Koppers, W.*: Die Anfänge des menschlichen Gemeinschafts-[293]lebens. Mönchen-Gladbach 1921; 14 *Koswen, M. O.*: Abriß der Geschichte und Kultur der Urgesellschaft. Berlin 1954; 15. *Layard, J.*, in: Institutions in Primitive Societies. Frankfurt/M. 1968; 16. *Lévi-Strauss, G.*: The Elementary Structures of Kinship. London 1969; 17. *Lowie, R. H.*: Primitive Society. London 1929; 18. *Lubbock, J.*: Origin of Civilization. London 1870; 19. *Maine, H.*: Ancient Law. London 1861; 20: Village Communities. London 1871; 21 *Makarius, R.*, in: Current Anthropology 1977 (18), No. 4; 22 *McLennan, J. F.*: Primitive Marriage. Edinburgh 1865; 23. *Medick, H.*: Naturzustand und Naturgeschichte der bürgerlichen Gesellschaft. Göttingen 1973; 24 *Meiners, Ch.*: Historische Vergleichung ... Vol. 1-3, Hanover 1793-1794; 25. *Morgan, L. H.*: Systems of Consanguinity and Affinity of the Human Family. New York 1871; 26. *Ders.*: Die Urgesellschaft. Stuttgart/Berlin 1921; 27 *Murdock, G. P.*: Social Structure. Toronto 1966; 28. *Olderogge, D. A.*, in: Current Anthropology 1961 (2), No. 2; 29. *Penniman, T. K.*: A hundred years of anthropology. London 1952; 30. *Rivers, W. H. R.*: Kinship and Social Organization. London 1914; 31. *Rose, F. G. G.*: Kinship, Age Structure and Marriage of Groote Eylandt. Berlin 1960; 32 *Schmidthenner, F.*: Zwölf Bücher vom Staate. Giessen 1839; 33 *Sellnow, I.*: Grundprinzipien einer Periodisierung der Urgesellschaft. Berlin 1960; 34 *Sellnow, W.*: Gesellschaft - Staat - Recht. Berlin 1963; 35. *Semjonow, J. J.*, in: SW/GB 1966, H. 8; 36. *Smith, A.*: Eine Untersuchung über das Wissen und die Ursachen des Reichtums der Nationen. Vol. 1, Berlin 1963; 37. *Sternberg, L. J.*, in: Proceedings of the 18th Intern. Congr. of Americanists, 1912; 38. *Ders.*: Semja i Rod u Narodov Severo-Vostočnoj Azii. Leningrad 1933; 39. *Thomson, G.*: Frühgeschichte Griechenlands und der Ägäis. Berlin 1960; 40. *Thurnwald, R.*: Werden, Wandel und Gestaltung von Familie, Verwandtschaft und Bünden. Berlin/Leipzig 1932; 41 *Westermarck, E.*: Geschichte der menschlichen Ehe. Jena 1893; 42. *African Systems of Kinship and Marriage*. London/New York/Toronto 1964; 43. *The Ethnological Notebooks of Karl Marx*. Assen 1972.

Günter Guhr

2.1.5. Craft

Craftsmanship is the production of labor and consumer goods that is largely separated from food production by the division of labor and is predominantly carried out manually in simple commodity production. It is a characteristic form of production in pre-capitalist class societies. Its roots lie in the developed stages of the peasant gentile society. Technically, it is based on the manual skills of pre-social hunters, gatherers, farmers and *shepherds, who mainly* covered their own needs for tools, weapons etc. *through* self-sufficient production. The state of development of *prehistoric* technology and ergonomics has been relatively well researched on an archaeological and ethnographic basis through the all-round evaluation of material remains (products, tools, workshops) and the study of production among living peoples of prehistoric society and has been summarized several times (e.g. [141] [26] [30] [31] [32]).

In prehistoric research, the production of tools, weapons, etc., which was carried out before the emergence of goods-producing crafts and alongside them within the framework of natural economic collectives, is often referred to as domestic crafts (misleadingly also domestic crafts, household or family trades) [1]. Already in hunter society, individual skill and temporary exclusion from other activities (e.g. after a hunting accident) could give rise to specialization in the production of tools as a form of natural division of labour. Specialized producers satisfied the needs of their collective with certain products. Any surpluses could be exchanged (cf. 2.1.2.).

The development of the productive forces in the economy based on plant and animal production led to increased specialization in the branches of household consumer goods production. With the increasing availability of the mobile means of production and the products of their

The specialists evolved into craftsmen. They lived either as a result of a tribal division of labor as artisan collectives in separate settlements or as separate artisans in the village communities. By exchanging the products they produced on their own account, the beginnings of the second great division of labour were carried out [MEW 21: 159] [11] and the seeds of the exchange of goods, which had already emerged from the inter-societal division of labour, were strengthened (cf. 2.1.2.). The artisanal producers of primitive society covered the modest demand for some products of the largely self-sufficient production collectives (families or the like) of a limited area in often only temporary, often seasonal activities and generally only worked to order. Their skills were usually preserved in the artisan collectives or families, tabooed, culticized in various forms and sometimes even mystified. In some cases, the roots of the caste system emerged from the division of labor among craftsmen.

Individual craftsmen settled in the economic, political and cultic centers of the tribes (castles, temples, oppida, etc.) or were forcibly settled there. To varying degrees, these centers developed an early urban character with a market function, and it was here that any possible contact with more highly developed societies took place most strongly. On the one hand, craftsmen were able to realize their production on the market. On the other hand, the upper classes increasingly appropriated the craftsmen's products - often under the cloak of old gentile conditions - and used them in accordance with gentile but already deformed traditions to equip their retinues, as a means of exchange, as a reserve, to equip festivals, sacrifices etc. and for their own consumption. It was only with the overcoming of primitive society that craftsmanship was able to fully develop.

Stone working [7] [28] [31: 128 ff.]:

Prehistoric and ancient people developed simple, practical tools for cutting, stabbing, scraping, etc. (hand axes, chopping tools) from simple single- and double-sided boulder tools. (hand axes, chopping tools), which everyone probably made themselves as required. The increasingly specialized groups of hunters from the Upper Palaeolithic onwards developed great skills in stone technology. After experimenting with almost all available rocks, hard, easily cleavable, sharp-edged material (flint, chert, obsidian, quartzite, etc.) was preferably selected and processed. Narrow blades were cut from specifically prepared rough stones, the most suitable ones were further processed using a variety of surface and edge processing techniques ("retouching") to create differentiated special tools (scrapers, graters, drills, knives, points and reinforcements for lances, spears, arrows, etc.) and combined with other materials (bone, wood). Small sculptures were made from rock (e.g. Venus statuettes). The high technical mastery of the products and the presence of archaeologically researched work sites allow conclusions to be drawn about the activities of specialists.

Under the conditions of plant cultivation and domestic animal husbandry, stone tools were perfected and new ones produced (axes, hatchets, harvesting knives, whorls, etc.) as well as weapons and jewelry (bracelets, beads) made from rock, occasionally from semi-precious stones. The processing techniques were also improved and expanded. Sawing [15], grinding and drilling using the abrasive effect of wet sand or stone crust [21] became generally accepted. Initially, solid drilling was replaced by the more productive hollow drilling. Drill drills, grinding pendulums and other simple machines were used to move the abrasives. Stoneworkers - e.g. in northern Europe - used these techniques to reproduce copper implements (axes, daggers) including technological details (cast seams). Rural primitive societies also produced the beginnings of stone architecture (megalithic buildings, menhirs, Stonehenge) and large sculptures. Elsewhere, stone vessels were made by pecking and grinding. Slate tools played a major role in Southeast Asia. Specialist production and the extraction of stone in mining reached a high level.

The use of metal tools reduced the function of stone tools, although they never disappeared completely (rough hammers, wedges, anvil stones). New areas of application were opened up for stone as grinding stones and mills. After simple grinders and crushers had already been

In the developed stages of the gathering (harvesting) economy, stone mortars and hand lathes were made from rock and improved by early farmers, with matching bottom (base) and top (runner) stones and appropriate sharpening by specialists who became craftsmen. In the late stages of prehistoric society, stone construction of terraces, fortifications, temples and residential buildings and their foundations increased. In some places, quarries were set up and bricks were formed as artificial stones from clay and finally fired.

Wood technology [7] [31: 128 ff.]

Due to the perishable nature of wood, archaeological evidence of its use and technology is extremely patchy. Simple wooden tools (clubs, digging sticks) are thought to date back to the earliest stages of human history. Lances with carved, fire-hardened tips are known from the Middle Palaeolithic. The variety of wooden hafting, implements and weapons increased considerably in the developed hunter cultures (since the Upper Palaeolithic), especially in densely wooded areas (javelin with spear sling, bow and arrow, club, throwing stick, blowpipe, fish spear, fish trap, fish fence, raft, dugout canoe, etc.). Obviously, they were generally made by the users themselves. The requirements of peasant producers expanded the scope of the wooden tool and its technology. Numerous new and further developed production instruments and weapons were made of wood, either in large parts (shafts for hatchets, axes and other implements) or entirely (digging stick, spade, worfel bowl, mortar, plow, spindle, loom, yoke), as was a large proportion of domestic utensils (bowls, plates, spoons, troughs, boxes, chip boxes). New and extensive areas of application were opened up for wood in architecture (house construction in post, block and other techniques, wells and other ancillary facilities, formwork, fencing, fortifications from palisades to extensive material and labour-intensive castle complexes), in the manufacture of furniture (table, chair, folding chair, chest, box, etc.) and in the construction of transport facilities and means of transport (cf. 2.1.2.). In addition to the decoration of everyday utensils, works of art were created from wood with a great wealth of forms, including masks, cult figures and other ritual objects.

In the ethnographically researched primitive societies, woodworking was often the work of men. The basic technologies were mastered to varying degrees of perfection by all of them. These included in particular the felling of trees, splitting with wedges, hollowing out (dugout, trough, tree coffin) with fire, turner, chisel and other tools as well as abrasives, carving with stone and later iron knives, etc. Higher demands were placed on wood joining (first in the literal sense by "binding" and "sewing"), bending and stretching (spears). Weaving rods etc. was mainly women's work. With these techniques, the simple inventory of self-sufficient gentile production collectives could be made. For more complicated work and timber construction techniques, specialists had already emerged since the Neolithic periods. From the late phase of the gentile society, craftsmen emerged from them, including carpenters (who, among other things, mastered practical wood joints such as doweling, wedging, dovetailing and mortising), boat and wagon builders (wainwrights, cartwrights). Specialists and craftsmen also practiced wood-turning, the technology of which had presumably been adopted by class societies [20], and cooperage or barrel-making.

The processing of bones, antlers, horns, ivory, shells and other animal raw materials [7] [28] [31: 128 ff.] also took place at early stages of human culture and had reached a considerable level among the developed hunter-gatherers. The raw material was a by-product of hunting, fishing and gathering in a variety of shapes and sizes, and later bones were also used in the production of domestic animals. Antlers were often collected and stockpiled as shedding poles. These raw materials were skillfully broken, and with the help of stone tools (gravers, etc.) by splitting, sawing and carving, picking and drilling holes, scraping, grinding and polishing, a diverse inventory was created for domestic use, which varied in composition from society to society, above all points, awls and awls, lance and arrow armour, spear throwers, reflex bows, harpoons and fish spears,

Fishing hooks, bone axes, antler hooks, braiding and sewing needles, skids, shafts, drinking horns, whistles, flutes, etc. Many work processes required the softening of the hard work objects, especially the antlers. Jewelry pendants (also made of shells, teeth, etc.) as well as sculptures and other works of art were also created by carving, the makers of which were probably specialists in the association of gentile collectives.

In farming societies, the traditional work experience was applied in accordance with the expanded requirements and ecological conditions. With the establishment of metal production, natural raw materials lost importance in certain functions, but they also had special areas of application and were given new ones. Among Central European tribes, these included, for example, the processing of bones and antlers into ornamental pins - sometimes with the help of a lathe - into knife handles, fittings and combs, game pieces, dice, etc. These types of products originate mainly from specialist and craft production.

To process the hides and skins of wild animals [2], hunting societies, especially in the temperate to arctic zones, developed practical empirical methods of cleaning, tanning and dressing, with which they produced permanently preserved, supple leather - with the hair coat remaining: fur. Livestock breeders used and extended these methods to process the hides and skins of domestic animals. Furs were needed for clothing, blankets and upholstery. Leather was used to make clothing, footwear, vessels and other containers and linings, covers for shields, boat coverings (fur boat), tarpaulins for tents and wagons, [297] saddles and harnesses, straps for equipment, weapons (lasso, bola, sling, slings, shackles) and belts, carrying and transportation straps, and later also bellows. In view of the importance of leather and fur for the self-sufficient economic units, the processing of hides remained an important part of domestic work in the entire gentile society, the surplus of which was exchanged. Only to a limited extent did specialists for processing branches develop (saddlers, bag makers, Riemer).

Pottery [22] [31: 376 ff]:

The plasticity of clay was already used by Upper Palaeolithic hunters to make figurines, but these only survived under particularly favorable conditions. Under conditions of sedentarization, pottery was produced by marine animal hunters (southern Japanese Yōmon culture, 10th/8th millennium; Pacific coast of South America, 4th millennium) and in the wake of the Neolithic revolution of the productive forces of peasant peoples (pre-Asia, 7th millennium) in the further development of solidified clay-lined cooking holes or basket containers. This invention became generally accepted under peasant production conditions. The raw material for ancient pottery was generally accessible, and its work processes (clay preparation, leaning, hand shaping by spiral bead or lobing, hollowing, driving or similar processes, decoration, firing in an open fire or pottery kiln) could be mastered at home. According to observations in recent gentile societies, the natural division of labor meant that women were predominantly responsible for meeting the demand for vessels and other domestic pottery (spindle whorls, spoons, clay weights), perhaps also for figurative pottery (terracottas). On the basis of good clay deposits and individual skill, pottery collectives and individual specialists emerged who exchanged ideas and further developed the technology. With the emergence of the artisanal division of labor, men increasingly emerged as producers. Shaping and modeling aids and tools were created, and vessel painting emerged. Empirically improved clay treatment and preparation - in Mesopotamia since the 5th millennium the two-part kiln, which ensured uniformly high firing, and the hand-built potter's wheel, which emerged from the mold base in the spiral bead construction - led to high-quality products. The fast-rotating hand potter's wheel was developed in Mesopotamia during the gentile dissolution phase and was perfected in the ancient oriental and antique class societies. It was also introduced in a simple form in some of the primitive societies neighboring the class states in the dissolution stage and strengthened the development of handmade pottery, which emerged elsewhere without the potter's wheel and began to push back the domestic production of ceramics.

The production of technical ceramics for pottery and smelting (racing) kilns and their linings, for casting moulds and crucibles, jet bricks (tuyeres) etc. was in the hands of producers specializing in the relevant branches. Building ceramics originated in the Near East, where standardized building elements were produced and used for the first time from around the 7th century (Jericho) with dry bricks (adobes) and from the 5th/4th century with fired bricks. This invention was only fully utilized in class society. Adobe construction also developed in America. Rural gentile societies in other areas used earth for rammed earth buildings or for clay plastering (wall plastering) of half-timbered houses and for screeds.

Textile technology [12] [31: 413 ff.]:

Wild fibrous plants, rushes, raffia, creepers, animal hair and other materials were already being used by hunters and gatherers. Among other things, they made cords by twisting them together (twining) and used knotting and braiding techniques to produce nets and containers for various purposes (fishing, hunting, transportation, hair nets, etc.) as well as mats. In warm regions, bark bast fabrics, feather and leaf clothing (leaf skirts) were made. However, the production of textiles only became widespread among the rural genetic societies. Fiber plants (especially flax, hemp, cotton), hair- or wool-bearing animals (sheep, llama, camel) and silkworms (China [29: 441]) were domesticated over long periods of time and refined through breeding and enriched with new species. They provided raw material for fabrics, braids and felt. For woven fabrics, yarn was produced with a hand spindle after sometimes complex preparation of the fiber material (e.g. for flax: rippling, roasting, breaking, swinging, slitting by hackling). The most common weaving device was the vertical weight loom [9], which made it possible to arrange the weighted warp threads in sheds with the help of heddle rods and to produce functional weaves (linen, rib, various twills) by pulling them. Their structural effect created effective patterns for warp and weft, especially with differently twisted or dyed yarns. In addition, horizontal looms and various methods of ribbon and border weaving [24] as well as cord production were used in some areas. Textiles were custom-woven on the weight loom (cloaks etc.). Other garments were made by cutting and joining seams. Repairs were made by attaching patches or by darning as a manual imitation of weaving in linen weave, whereby the large scale of repairs demonstrates the value of textiles. Decorations were made using a variety of appliqués, embroidery, borders, fringes etc. as well as textile dyeing using vegetable (woad, madder, indigo) or animal dyes (purple snail). Through cut, color, decoration, quality, costume accessories, jewelry and other features, the functional clothing adapted to economic needs and environmental conditions was modified and became a prominent ethnic and social characteristic. Cattle-herding tribes processed animal wool and hair into felt [13], which they used to make coverings and flooring for tents and yurts as well as clothing. The techniques inherited from the hunter society were transferred to cultivated fibers and brought to technical and craft development.

The productivity of textile production was extremely low. Hand spinning achieved a respectable output of around 75 meters of fine yarn per hour. Weaving and felt production were also very labor-intensive and had a limited raw material base. For this reason, textile production was one of the most important domestic activities of women in gentile societies in cold and temperate climates. Particular skill could become the basis of a limited specialization, from which, among other things, magnificent garments emerged. In prehistoric society, there was no development of handicraft production of consumer textiles.

Metal production and processing were largely carried out by specialist collectives due to the sometimes complicated technology involved. These developed into crafts in the late phase of the gentile society.

Copper and bronze metallurgy [4] [8] [27]:

Rising demand and increased requirements for stone as a raw material led to the inclusion of solid raw copper in Stone Age technology on various occasions - in the Near Eastern-Balkan region from the 7th/6th century onwards. Cold forging (hammering) was used to produce simple tools (axes, knives) and jewelry (beads, needles, rings). Growing demand and the discovery of copper casting (5th millennium) stimulated the search for copper, which is very rare in its solid state. During [299] the further search, ores were identified and simple methods of smelting them were developed. Naturally impure ores (mixed ores) showed differences in the appearance and usage properties of the unintentionally smelted alloys (including antimony-arsenic bronze). According to observations, since the 5th/4th millennium other ores were processed in the Near East-Balkan region, their properties were tested, alloys were made, the copper-tin alloy bronze was discovered in the 4th millennium and at the turn of the 3rd millennium the optimum mixing ratio for various purposes was found to be in the range of about 90:10. The production of tools, weapons, jewelry, vessels, etc. was carried out by casting, which allowed great variations in shape and encouraged decoration, or by forging (toreutics). Common casting methods were: simple shell casting; gravity die casting in multi-part molds made of stone or bronze, sometimes with inserted cores for cavities; lost-mold casting (lost-wax casting); overmold casting (for metal joints and repairs: [5]). Soldering and numerous techniques for finishing castings were mastered.

Bronze metallurgy was perfected in the old class societies, but remained of relatively minor importance for the improvement of material production. From the beginning, its products and technology had also reached neighboring primitive societies, where they were further disseminated and mastered even in areas where copper and tin were lacking (e.g. Northern Europe, 2nd millennium). In eastern North America, raw copper was extracted and cold worked by developed hunter-gatherer populations in the 5th/4th millennium BC, but casting technology was not developed. This took place in the Andean civilizations, where the casting of copper - as well as gold and silver - was mastered in the 1st millennium BC and bronze alloying at the turn of the 1st/2nd millennium AD [19: 109]. In Southeast Asia, bronze technology with gravity die casting was probably already known around

3,000, and a flourishing bronze culture developed (Dôngson [18: 42]). With the rise of iron production, the use of bronze concentrated on vessels, fittings, jewelry and sculptures.

In addition to copper and tin, late-Gentile societies also extracted and processed lead, silver and gold [8], but these metals were not of great importance to them. Gold was worked by driving or casting into jewelry (in combination with other materials), ceremonial objects and vessels, sometimes with great artistry, and sometimes simply stored.

Iron metallurgy [3] [8: 378 ff.] played a decisive role in the process of dissolving the gentile order. It was invented in the middle of the 2nd millennium in the ancient Oriental class society - after the isolated, economically insignificant use of meteoric iron - and since the turn of the 1st millennium had been adopted by gentile societies in Asia, Africa and Europe and in some cases further developed independently. Iron ores were widespread as mountain ores and turf (swamp) ores. Easily fusible ores were mined or collected, processed and smelted by direct reduction with charcoal using the race process (race work) [6]. So-called smelting furnaces or small shaft furnaces were used for this purpose, the most advanced of which had fan ventilation and slag tapping. The product was small lumps of low-carbon iron with predominantly good forging and welding properties, which had to be intensively baked and forged before processing. Raw (cast) iron could not be produced. Race smelting was practiced in many settlement collectives to meet their own needs. Good ore deposits were used for production for exchange.

The iron was used to forge tools, weapons, fittings and jewelry [17]. Methods for modestly improving their quality (hardening the cutting edges by carburizing,

occasional iron-steel welding) were developed. Simple blacksmithing and, above all, repair work (hammering, sharpening) was carried out in the self-sufficient economic units. Blacksmith collectives or blacksmiths in the association of village communities, who developed into village craftsmen, satisfied the needs of the gentile collectives for simple iron tools. Specialized producers evolved into craftsmen (armourers, platers, blacksmiths), and precious metal producers into precious metal smiths. In some societies, bronze casters and iron smiths worked as itinerant craftsmen. Others, especially armourers and blacksmiths, were drawn to the courts of the gentile nobility or concentrated in early urban centers. In many cases, metalworkers in particular enjoyed social prestige due to their production skills; they were sometimes feared as sorcerers and occasionally despised.

Mining [10]:

Due to the unequal supply of natural resources in the tribal territories, deposits of good stone materials and dyes (ochre etc.) were in great demand. They had been exploited since the Upper Palaeolithic for personal use and exchange. Hunting groups occasionally switched from collecting to mining and penetrated the mineral-bearing layers in pits (mardelles). The increasing quantitative and qualitative needs of Neolithic farmers led to the expansion of quarrying, especially of stone. Numerous underground mines were created, especially in the developed Neolithic period. Their shafts, which were usually 4-12 m deep, penetrated down to layers containing flint, which were followed by short tunnels. Flint, chert, quartzite, obsidian and other materials, sometimes also semi-precious stones, were extracted from such pits. Underground mines of this type are documented from many places in Europe [25] and other areas. Installations and other technical facilities are still unknown, the beginnings of mine ventilation were through air holes. Stone for building purposes was occasionally extracted from quarries in advanced gentile societies. Metallurgy placed greater demands on mining. Prospecting sites on outcrop lines were extended to underground mines for copper ores (known in the Alpine region, especially Mitterberg [16]; Spain, the Carpathians, the Caucasus region, Altai) and tin ores (Spain, England) if the deposit conditions were favorable. Deeper shafts and longer tunnels were carved out. Mining was carried out in places by firesetting. Gold was partly mined by hand and largely mechanically separated from the gangue, partly washed out (legends: Rheingold, Golden Fleece). In many places, the demand for iron ore could be met by the surface mining of turf ore. Simple open-cast mining and, occasionally, deep mining using the known methods were carried out at deposits of suitable ore close to the surface.

Salt extraction:

Since the Neolithic period, it has been produced in many places by evaporating graded seawater, brine or leached ash from saline plants (ash salt). Rock salt was mined from suitable deposits. An important prehistoric deep mining operation was carried out in Hallstatt (Salzkammergut, Austria) in the 7th/4th century [23]. Excavated shafts and tunnels, closed by climbing trees and chutes, led from about 900-1,200 m above sea level (about 400-700 m above Lake Hallstatt) more than 300 m deep into the mountain and had a total extension of several kilometers. Lighting was provided by torches made from bundles of chips. The rock salt was brought to the surface in empty sacks. [301]

Literature:

1 *Bibikov, S. N.*: in: *Domasnie promysly i remeslo*. Leningrad 1970, p. 9 ff.; 2. *Bravo, G. A./Trupke, J.*: 100.000 Jahre Leder. Basel/Stuttgart 1970; 3. *Coghlan, H. H.*: Notes on Prehistoric and Early Iron in the Old World. Oxford 1956; 4. *Ders.*: Notes on the Prehistoric Metallurgy of Copper and Bronze in the Old World. Oxford 1975; 5. *Drescher, H.*: Der Überfangguß. Mainz 1958; 6. *Ernst, F.-J.*: Die vorgeschichtliche Eisenerzeugung. Neubrandenburg 1966; 7. *Feustel, R.*: Technik der Steinzeit. Wei- mar 1973; 8. *Forbes, R. J.*: Metallurgy in Antiquity. Leiden 1950; 9. *Hoffmann, M.*: The warpwei- ghted loom. Oslo 1964; 10. *Jahn, M.*: Der älteste Bergbau in Europa. Berlin 1960; 11. *Koslow, G. A.*: Die Warenproduktion in ihren Anfangsstadien. Berlin 1960; 12. *La Baume, W.*: Die Erfindung des Textilhandwerks in Alteuropa. Bonn 1955; 13. *Lauffer, B.*: in: *American Anthropologist* 1930 (32),

p. 1 ff.; 14 *Lips, J. E.*: Vom Ursprung der Dinge. Leipzig 1951; 15. *Pietzsch, A.*: in: AFB 1951 (1), p. 31 ff.; 16. *Pittioni, R.*: Urzeitlicher Bergbau auf Kupfererz. Vienna 1957; 17. *Pleiner, R.*: Staré Evropské Kovárství. Prague 1962; 18. *Quitta, H.*: in: Das Altertum 1975 (21), p. 36 ff.; 19. *Ders.* in: Modern problems of archaeology. Berlin 1975, p. 103 ff.; 20. *Rieth, A.*: in: FuF 1941 (17), p. 369 ff.; 21. *Ders.*: in: Zeitschrift für schweizerische Archäologie und Kunstgeschichte 1958 (18), p. 101 ff.; 22. *Ders.*: 5.000 Jahre Töpferscheibe. Konstanz 1960; 23. *Schauberger, O.*: Ein Rekonstruktionsversuch der prähistorischen Grubenbaue im Hallstätter Salzberg. Horn/Vienna 1960; 24. *Schlabow, K.*: Die Kunst des Brettchenwebens. Neumünster 1957; 25. *Schmidt, E.*: in: Der Anschnitt 1973/1974 (23/24); 26 *Schmidt, M.*: Die materielle Wirtschaft bei den Naturvölkern. Leipzig 1923; 27. *Selim- chanow, I. R.*: Enträtselte Geheimnisse der alten Bronzen. Berlin 1974; 28. *Semënov, S. A.*: Pervo- bytnaja tehnika. Moscow 1957; 29. *Solheim II, W. G.*: in: Handbuch der Urgeschichte. Vol. 2, Bern/Munich 1975, p. 425 ff., 30. *Dictionnaire archéologique des techniques*. Vol. 1-2, Paris 1963- 1964; 31. *A History of Technology*. Vol. 1, Oxford 1955; 32. *Technologie und Ergologie in der Völkerkunde*. Mannheim 1966.

Heine Grünert

2.1.6. Hunting and gathering

The earliest stages of prehistory - the Upper and Middle Palaeolithic - are only documented by archaeological sources, which are only available from the continents of the Old World. As the exploration of these periods originated in Western Europe in particular, the leading cultures for the depiction of their development were originally taken from sites in this region. Over the past 50 years, Palaeolithic strata in Africa and Asia have been increasingly explored, although the density of finds and continuity of strata is not comparable to that of the European mainland. The Old Palaeolithic cultures - named Abbevillian, Acheulian and Tayacian after the sites in Western Europe - are mainly characterized by hand axe and flaked tools (of the Levalloisian and Clactonian techniques). The somewhat earlier finds of tools from the African developed Oldowania consist mainly of boulder tools and fist-like forms. None of the earliest stone tools are direct evidence of the economic activities of hunting and gathering. It is therefore not possible to clearly determine when, in the course of the Upper Palaeolithic [302] or only later, special hunting emerged from the original and undifferentiated way in which prehistoric man acquired food, which presumably consisted primarily of the simple acquisition of plant and animal food. The extent to which the two Upper Palaeolithic wooden points (from Clacton-on-Sea and Torralba) came from spears or digging sticks remains an open question. An attack hunt is not inferred from the discovery of the yew wood spear from Lehringen [14: 1481(21: 41]. The animal remains found in the archaeological layers constitute the most important indirect (!) evidence for Upper Palaeolithic hunting [19]. Gathering, originally inherent to animals [MEW 34: 170], belonged to the consumption fund since the specifically human production conditions of tool manufacture and was thus a part of production [MGr 392]. The capture (hunting, catching) of weaker animals was included in the original acquisition of food, possibly also a special role of carrion utilization ([14: 147] [15], see [9] [22], against [7]).

There is more favorable archaeological evidence for the Middle Paleolithic - after the leading European cultures of Moustéria and Micoquia. In addition to the various types of stone tools made using the hammering and chipping technique [3] (hand axes, hand points, scrapers, blades, points), there is evidence of worked bone, dye and burials. Edge retouching is more meticulous, sometimes double-sided, and there is some surface retouching, including tools with serrated edges. A former shafting of hand axe tools is considered by some researchers [14: 151]. In addition to field finds, there are now numerous demolition and cave sites. The tool inventory of the Middle Palaeolithic was more advanced than in the Upper Palaeolithic. In contrast, the stone and bone industry of the Upper Palaeolithic was characterized by a new technical quality. With the end-Pleistocene spread to America and Australia, the Upper Palaeolithic hunting and gathering economy became a worldwide phenomenon, with hunting becoming the dominant mode of production in the gentile society. At the same time, gathering developed alongside

Under the conditions of exogamy and the social division of labor, hunting and fishing became a separate prehistoric mode of production due to the separate production and appropriation by women. Through exchange and distribution in camps and families, which at the same time opened up exchange between the marriage-related gentes, its products entered into social reproduction. This and the increasing use of special production tools later allowed this branch of production to develop into the harvest economy of the late Palaeolithic.

The western European key stages of the Upper Palaeolithic according to special types of tools and archaeological strata are: Chatelperronien, Aurignacien, Gravettien, Solutréen, Magdalénien. The Middle Stone Age stages Sauveterria, Tardenoisia, Asturias and Maglemose are post-Iron Age. From the archaic form of fish hunting and mollusc catching of recent hunter-gatherer peoples, we know that hunting and gathering were gradually extended to the water and are thus older in evolutionary terms than actual fishing. Archaeological evidence of specialized and intensive fishing can be found at the end of the Upper Palaeolithic and in the Mesolithic in many parts of the world. Fishing, marine animal hunting and harvesting became special branches of the economy in some cases and determined the mode of production where they were mainly practiced. In addition to advances in production, these brought with them above all temporary sedentariness: boats, sledges, dogs, composite canvas harpoons, Arctic clothing, snowshoes, permanent huts, houses, stockpiling [3: 188 ff.] [6: 69 ff.] [18].

The Palaeolithic stone tools found in Western Europe, mostly under abysses and in caves, were predominantly narrow blades of various shapes and with different [303] uses: knives, points for various purposes (spear and arrowheads), with surface retouch, scrapers, burins, drills. These were now joined by bone, ivory and antler implements, such as spears and arrows, also with barbs, spatulas, trowels, daggers, needles with eyelets, one- and two-sided harpoons and perforated handles. The evidence of figurative and geometric art (rock and bone engravings and paintings of animals, people, huts, traps; sculptures, especially of women) and remains of jewelry (beads, necklaces) and burials complete the source material. The majority of the types of stone and bone tools were working parts of composite tools and weapons, the other parts of which (handles, hafting etc.) were made of perishable materials and have not survived. The hunting animals of the Upper Palaeolithic period varied according to the geographical zones and areas. Bone remains and illustrations of mammoths, woolly rhinoceroses (both extinct in the Magdalenian), primeval bulls, bison, bears, lions, wolves, horses, deer, ibex, reindeer, birds, fish and others have been found in the Ice Age regions of Western Europe. While in the preceding Middle Palaeolithic the Neanderthal-type Old Man was widespread, from the Upper Palaeolithic onwards the Neuman (*homo sapiens*) appeared in the populated areas of the Old World. The spread to the New World and Australia was carried out by human groups belonging to the *Neoanthropus*. The biological and cultural continuity of development between Old and *Neoanthropic* man and between the Middle and Upper Paleolithic is established on the basis of anthropological and archaeological methods [7: 43 ff.] [25: 51 ff.]. Certain bourgeois researchers reject a causal connection between the Upper Palaeolithic and *Neoanthropus* because archaeological source findings would not allow a statement of the connection [14: 50 f., 190].

The material culture, especially weapons and tools of Palaeolithic and Mesolithic type of many ethnographically researched hunter-gatherer peoples as well as their affiliation to the *neoanthropine* human types, allows them to be used in essential features as an example of the Upper Palaeolithic and Mesolithic hunter-gatherer economy. It offers a more complete picture than the archaeological results [23] [24] [26].

The economic unit was always formed by the family or local group, whose men usually belonged to the ancestral gene of the group area [10: 78] [18: 147 ff.]. Such a group consisted of the closest blood relatives and their wives, about twelve to forty people. Depending on the ecological conditions, it could encompass the entire genus or be divided into individual families or, in the case of economic requirements, with other genus groups or

unite the whole tribe. According to the gender division of labor, the men went hunting or fishing individually, in groups or larger communities. The women with the children went out in communities, but each gathered things separately. Plants or roots, tubers, seeds, saplings, insects, molluscs, small animals, firewood for the camp, building materials, etc. formed their yield. The single wife (rarely more) of a man formed a consumer household with the children and had to give food to her husband and relatives. The man belonged to the hunting community, which was a production group and could also be a consumption unit. On the one hand, he had a share in the family household and, on the other hand, he had to give the spoils of the hunt to his family and relatives [4: 206 f., 261 ff.] [18: 135 ff.]. Cases of production and consumption communities of entire hunting groups have become known [5: 105] [20: 54] The roaming way of life, which forced the use of the smallest equipment of household goods and weapons as well as temporary [304] windbreaks and huts, resulted from the need to search all parts of the group's territory for accessible food sources or to follow the game - often over long distances. Stockpiling was originally not possible [18: 130]. It only developed under the conditions of semi-possessive forms of economy, which were necessary in temperate and subarctic climate zones, for example, or became possible when wild fruits were available in large quantities [10: 41 ff.]. The woman's income from gathering was often more secure than the man's income from hunting. If there were abundant harvests, significant insect infestations or large hunts were planned, the usual division of labor between the sexes was abolished and the man took part in harvesting and the woman in hunting [5: 36 ff.] [12] [17].

The social unity of men, which was based on the economic social unity of the mode of production, established the hunting community. It practiced simple cooperation, taught boys and young men how to hunt and war, how to make weapons and all the necessary knowledge of nature and social rules. The situation was similar for women, who later had to gain their special ecological experience in the ancestral territory of their spouses [18: 147]. Hunting was first and foremost cunning, and for each animal species and for each season the conditions had been worked out accordingly and the right weapons and methods had been developed. This strict unity of purpose and technology was further elaborated with the development of hunting traps and special fishing (barrage fishing, poisoning, angling, netting, etc.). The processing of products for consumption was important for the hunting and gathering economy. The processing of seeds into meal and dough, which was baked in hot ashes, as well as the detoxification of valuable starchy tubers or fruits [10: 42 ff.] was probably very early in their development. Meat and fish were cooked in hot ash or over the fire, and sometimes eaten raw. There were originally no containers for water, and it had to be drunk where it was available. Raw vessels made of egg shells, wooden troughs or similar had only a provisional function in the roaming way of life. Earth, plant and animal raw materials were valuable for the manufacture of tools, weapons, containers and jewelry. Clothing and more stable dwellings were only gradually developed under the conditions of temperate and subarctic climate zones.

Drifting, chasing and stalking are considered to be among the oldest known hunting methods due to their simplicity. The trap is first documented on Upper Palaeolithic rock paintings [13] [14]. In general, stalking forced the individual hunter or a small group with appropriate cover to get very close to the game, which could then be hit by throwing or shooting with a long-range weapon (throwing club, bola, spear without or with spear sling, arrow with bow). The approach was supported in part by disguise or by luring calls from the hunter [5: 28] [16: 77]. The pursuit forced fleeing mountain game into ever higher, even hopeless places. Chasing ungulates in the open landscape often led to the final exhaustion of the animal only after days, so that the hunter could then kill it with a stone or run it down [2: 80] [5: 29, 105]. Direct combat was also practiced, for example with the bear, which was tracked down and then attacked and killed with the thrusting lance [1: 197].

Originally, the hunters went hunting armed with clubs or spears and killed the game that had been flushed out by the women and children from cover. A further development shows

the use of large set nets to block off the escape route, or encircling the animals with fire. The hunters shot the entangled or trapped game with bow and arrow. Tribal[305] hunts made it possible to pursue large herds of ungulates in steppe areas, to lure them over long distances to prepared, often kilometer-long hurdles of piles of stones or wood and undergrowth, which gradually converged in a funnel shape, and to urge them on. The fleeing animals were driven towards a steep slope, where they fell to their deaths or were wounded and killed by hunters with bows and arrows.

The entire tribe was then occupied with the processing of meat, fat, fur and bones [5: 29, 37, 52 ff., 104 f.] [11: 40 f.] [16: 80]. Large trapping pits - dug only with digging sticks, hands and hide covers and reinforced with vertically placed sharpened stakes - were created on the game trail [16: 79]. Elephants were hunted in different ways: two hunters armed with spears would sneak up behind the animal and injure or cut its tendons with a targeted throw, causing it to buckle with its hind legs. During the subsequent attack from the front, the trunk was chopped off piece by piece and then the eye was hit with the spear [2: 163]. In a similarly skillful hunting method, individual hunters approached the elephant from behind on a slope so that they could drive a sharp, strong and poisoned bamboo splinter into the sole of its foot between the horn pads, which the animal kicked in further, injuring itself dangerously and killing it with spears after its fall [11: 28].

Usually, one or other type of fruit, fish or game was seasonally abundant in the economy of every hunter-gatherer society ("stacked fruit"), so that it was possible to obtain plenty of food every day for a limited period of a few weeks or to build up short-term stocks. During this time, people lived together in clans and tribes, organized social affairs (marriage, tribal traditions, redemption of blood revenge), engaged in artistic and cult activities (dances, jewelry customs, painting, etc., initiation, age groups, bear worship, totem ceremonies, reproductive magic) and, if necessary, waged war or negotiated and exchanged products with neighbouring tribes. The manufacture of tools was also practiced during this time. Ideologies corresponding to the mode of production had also developed, with hunting customs and rites, totemic beliefs, bear worship and so on. Hunting animals were considered to be related to humans, which can be explained by their efforts to establish a spiritual relationship with them and gain a kind of power over them.

Literature:

1. *Alexejenko, J. A.*: in: *World of Faith and Folklore of the Siberian Peoples*. Budapest 1963; 2. *Baumann, H./Thurnwald, R./Westermann, D.*: *Völkerkunde von Afrika*. Essen 1940; 3. *Feustel, R.*: *Technik der Steinzeit*. Weimar 1973; 4. *Fison, L./Howitt, A. W.*: *Kamilaroi and Kurnai*. Melbourne 1880; 5. *Forde, C. D.*: *Habitat, Economy and Society*. London 1964; 6. *Gramsch, B.*: *Das Mesolithikum im Flachland zwischen Elbe und Oder*. T. 1, Berlin 1973; 7. *Hennig, E.*: in: *EAZ* 1970 (11); 8. *Herrmann, J.*, in: *Sitzungsberichte AdW der DDR* 1973/16. Berlin 1974; 9. *Johst, V.*: *ibid.* 10. *Krause, F.*: *Die Kultur der kalifornischen Indianer*. Leipzig 1921; 11. *Ders.*: *Wirtschaftsleben der Völker*. Breslau 1924; 12. *Lips, E.*: *Die Reiserntete der Ojibwa-Indianer*. Berlin 1956; 13. *Lips, J. E.*, in: *Tagungsberichte der Deutschen Anthropologischen Gesellschaft*. Leipzig 1928; 14. *Müller-Karpe, H.*: *Handbuch der Vorgeschichte*. Vol. 1, Munich 1966; 15. *Padberg, W.*, in: *EAZ* 1967 (8); 16. *Passarge, S.*: *Die Buschmänner der Kalahari*. Berlin 1907; 17. *Reim, H.*: *Die Insektennahrung der australischen Aborigines*. Berlin 1962; 18. *Sellnow, I.*: *Grundprinzipien einer Periodisierung der Ur-[306]geschichte*. Berlin 1961; 19. *Soergel, W.*: *Die Jagd der Vorzeit*. Jena 1922; 20. *Thurnwald, R.*: *Die menschliche Gesellschaft*. Vol. 1, Berlin/Leipzig 1931; 21. *Toepfer, V.*: *Tierwelt des Eiszeitalters*. Leipzig 1963; 22. *Ulrich, W.*, in: *EAZ* 1970 (11); 23. *Man the Hunter*. Chicago 1968; 24. *Ochotniki, Sobirатели, Rybolovi*. Leningrad 1972; 25. *Weltgeschichte bis zur Herausbildung des Feudalismus*. Berlin 1977; 26. *Die Wildbeutekulturen*. Wiesbaden 1962.

Günter Guhr

2.1.7. Warlike ventures as an economic factor

"Outwardly, war equalizes; it can end with the destruction of the tribe, but never with its subjugation" [MEW 21: 152]. With these words Engels characterized a very specific aspect of the social relations of gentile society, which is closely related to the economy. The human consciousness of the people was originally narrowly limited [16: 177, 209]. The members of their own ancestral group, the gens, the tribe, usually referred to themselves with the word "we", and many tribal names, which were proper names, meant nothing other than "men" (think of the progenitor of Germanic tribes *mannus*, i.e. man - Tacitus, *Germania* 2). What was outside the tribe or the tribal relatives was not

"Man" was foreign, dangerous, hostile. The more distant and foreign in language and racial type the hostile groups were, the more bitter the fights [11]. But even relatives by marriage and in-laws were treated with suspicion under certain circumstances. It could happen that in the event of an unexplained death, the wife was the first to be suspected of an evil spell. Warlike threats and black magic generally came from foreign groups, while sorcery and witchcraft were opposed [17: 61 ff., 88 f.]. Solidarity within and blood revenge without were iron laws.

At all levels of primitive society, economic activity and combat were closely linked. The hunter fought against the human enemy with the same weapons with which he hunted game. Hunters and warriors were identical, the hunting party was a war party and war was one of the first forms of hunting [MEW 23: 353]. However, it is not possible to determine exactly how old war is in prehistoric times, as the archaeological evidence leaves the question open. According to the results of ethnology, i.e. in analogy to its occurrence among the hunter peoples, it can be placed in the Upper Palaeolithic in terms of developmental history. The primitive warlike conflicts have nothing to do with a "primal aggressiveness" [11: 220 f.]. This unambiguous statement of ethnology is based on the facts known from primitive hunting communities about the connection between their economic and social existence with limited warfare and the diverse measures of consciously practiced inviolable or peaceful neighborliness.

Since the early stages of human development, the means of warfare have embodied the respective peak of technology, be it the club and throwing spear of Diluvian man or - already in the early modern period - the obsidian-armored club and the cotton jerkin of the Akkadian warrior. The club and throwing club, Palaeolithic stone knife, spear and spear-thrower, bow and arrow were used in various types of combat [15]. Multi-headed or barbed arrows [307] or spearheads caused serious injuries in battle, and the hit of a poisoned arrow often resulted in death [7]. A parrying stick, simple stick or wooden and leather shield served as defensive weapons [2] [4]. All warlike undertakings were characterized not so much by courage and bravado as by cunning and trickery, destruction of the weaker and caution against the stronger. Therefore, open group battles were rare, but the secret attack at dawn and the pursuit and destruction of the weaker opponent were more common. One had to get hold of the enemy immediately in order to kill or capture him. The ceremonial duel was fought in an orderly fashion between individuals or between representatives of enemy groups [8: 153 ff.] [18: 20 ff.]. Therefore, like the formal conclusion of peace between exhausted opposing groups, it points to the beginnings of the institutionalization of combat.

In social terms, "youth consecrations" and manhood stages were associated with education for battle and war (endurance, enduring pain, war dances and songs, knowledge of the enemy, etc.). Nevertheless, a fighter feared for his life and did not use it unconditionally. Young men and adult hunters were subject to chieftains and wise elders, sometimes also women, who led the warfare of the gens, local group or tribe and, if necessary, conducted negotiations and peace treaties. Crossing tribal borders, invasion by hostile neighbors under pressure due to a surplus population [MEW 8: 543], theft of women, sorcery, old

Blood feuds, violation of hunting territory, etc. were causes for war, which had to secure one's own economic management and society in general [9] [12] [18: 37 ff., 45, 59, 72]. On the other hand, establishing exogamous relations with neighboring tribes was one of the main means of avoiding these armed conflicts. Extensive territories between unpeaceful neighbors ensured that accidental clashes between groups of hunters were extremely rare. They usually avoided each other. In the case of seasonal gatherings or the killing of large meat animals, even otherwise hostile neighbors were involved in harvesting or consumption (cf. 2.1.3., 2.1.6.).

With the formation of villages, sedentarization, soil cultivation, livestock breeding, a considerable increase in the population, constant overproduction, ownership and the beginnings of wealth, with new material culture and technology, such as house and boat building, developed stone and woodworking, improved leather, fabric and basket production, etc., conditions had been created that made war a permanent phenomenon: it was finally institutionalized in the life of the peasant gentile society. A distinction was made between different types of war: the main aims of war were the fight for pastureland, the plundering of herds, the expansion of cultivation areas with extensive soil cultivation and the capture of human beings [3: 139 ff., 187 ff.] [18: 72] [20]. Initially still on a small scale, reciprocal village raids were carried out to decimate (killing women, children, men), even to the point of exterminating the enemy, individual or group hunts to capture humans and head hunting (trophies of skulls or other body parts and human skin, prisoner sacrifices, immediate and delayed cannibalism, occasional slavery). The development of village defense systems began (barriers, observation posts, tree houses, palisades, man traps). Fighting with the help of boats required a more solid team formation [15]. War was waged by gentile farmers and shepherds against hunter-fishermen-harvesters who had stayed behind and were then destroyed or driven back. On the other hand, the theft of livestock or the plundering of fields was practiced by hunter-gatherer tribes. There were even mass incursions by hunter-gatherer tribes into the territories of farmers and [308] their encroachment. Success in war had now become the prerequisite for the social status of men in the community. In these and the following economic and cultural stages, too, the man embodied the unity of hunter and warrior. Be it that successes had to be achieved in the course of the initiation stages or that the skull of at least one enemy had to be captured for marriage, entire systems of social ranks characterized the lesser and greater war successes of the individual [3] [14: 186 ff.]. At the same time, however, overproduction led to the development of new economic forms, such as the feast of merit, which used bloodless methods to create competition (which could also have a hostile character) across narrower gentile and village communities, sometimes into other tribes, bringing together previously separate territories and curbing the immediate acts of war (cf. 2.1.3.).

Under the conditions of constant warfare in the developed gentile society [1] [6: 134 ff.] [13: 129 ff.] [18: 114 ff.], the strengthening of the tribes had become an urgent necessity. On the one hand, this was achieved by the introduction of a permanent war chief [10: 124 f., 174 ff., 209 f., 214, 269 ff.], whereby the group battle was systematically structured and tactically taught (team according to gentes, various weapon carriers, phalanx, sub-leaders, command authority) [Tacitus, Germania 13 ff.] [1] [10: 201]. In terms of technology, battle axe and shield, bark and absorbent cotton armor, thrusting lance, reinforced wooden sword, and finally metal weapons had become available [11: 242 ff.] [15]. A warlike spirit [5: vol. 4, 811] [10: 124, 181, 214] and an incentive to sacrifice dominated the entire tribal life. The warrior was promised the highest honors and pleasures in the afterlife. However, he also had a share in the spoils, which had now become the main objective of war in order to acquire wealth. Battle groups were formed on the basis of age groups and allegiances, which were only partially anchored in the clan. On the other hand, the alliance of related tribes led to the expansion of military strength and the possibility of constant mobile warfare. The confederation existed on the one hand on the basis of the genetic organization of the tribes and on the other hand on the basis of the treaty between the tribes, for whose supreme leadership the Federal Council had been formed.

Morgan [10] characterized this military development of primitive society with the term "military democracy". He described it using the classic example of the Indian Iroquois Confederacy, which he placed in the middle of the lower stage of barbarism in his periodization of primitive society (archaeologically approximately Neolithic). As an example of the economically and culturally more advanced middle stage of barbarism, he discussed the second stage of military democracy using the example of the Aztecs of Mexico before and during the Spanish conquest (archaeologically around the transition from the Stone Age to the Metal Age). In addition to the council, they also had a permanent military leader of the confederation. Finally, for the upper stage of barbarism, in addition to the Roman "royal period", he dealt with the ancient Greek society of the Heroic Age (archaeologically around the early Iron Age), which, in addition to the council and the permanent army commander (basileus), had already developed the popular assembly, which was no longer based on the gentile structure. Contrary to the "royalist" interpretation of ancient historical research at the time (Gladstone, Grote), Marx supported Morgan's view of the Heroic Age of the Greeks as a military democracy [19: 206]. Hegel [5: vol. 3, 545] already emphasized that these conditions were not to be equated with the later monarchical constitution. Engels characterized the upper stage of barbarism as military democracy and added to the ancient Greek and Roman example that of the Germanic peoples of the Migration Period. At this stage, which already knew the accumulation of wealth and the beginnings of direct [309] commodity production, war had become a permanent phenomenon in the life of the people and a "standing branch of industry" [MEW 21: 160] [13: 329] [14: 422].

At this advanced stage of gentile society, war and the organs of war had led to warrior and meritorious nobility, who with their followers formed new organs of power alongside gentile nobility and gentile members. Warfare as one of the early great cooperations of labor brought the subjugation of foreign tribes to tribute and slave delivery and the conquest of land and people and thus rule and servitude. Large-scale exploitation was developed with the emerging barbarian empires, which initially benefited the members of the conquering tribes, as they had already constituted themselves as the ruling class - even if they themselves were already stratified into classes (cf. specific examples [6: 134 ff.] [13: 129 ff., 301 ff.] [14: 417 et seq.]).

Literature:

- 1 *Bandelier, A. F.*: On the War and Mode of Warfare of the Ancient Mexicans. Vol. 2, Cambridge (Mass.) 1880; 2. *Friederici, G.*: Ein Beitrag zur Kenntnis der Trutzwaffen der Indonesier, Südseevölker und Indianer. Berlin 1915; 3. *Führer-Haimendorf, Chr. v.*: Die nackten Nagas. Leipzig 1947; 4. *Germer, E.*: Waffen der Südseevölker. Leipzig 1965; 5. *Hegel, G. W. F.*: Vorlesungen über die Philosophie der Weltgeschichte. Vol. 1-4, Berlin 1970; 6. *Katz, F.*: Die sozialökonomischen Verhältnisse bei den Azteken im 15. und 16. Jahrhundert. Berlin 1956; 7. *Lewin, L.*: Die Pfeilgifte. Leipzig 1923;
- 8 *Lumholtz, K.*: Unter Menschenfressern. Hamburg 1892; 9. *Mjöberg, E.*: in: Archiv für Anthropologie 1925 (20); 10. *Morgan, L. H.*: Die Urgesellschaft. Stuttgart/Berlin 1921; 11. *Mühlmann, W. E.*: Homo creator. Wiesbaden 1962; 12. in: Die Entwicklung der Kriegswaffe und ihr Zusammenhang mit der Sozialordnung. Cologne 1953; 13. *Rusch, W.*: Klassen und Staat in Buganda vor der Kolonialzeit. Berlin 1975; 14. *Sellnow, I.*: Grundprinzipien einer Periodisierung der Urgeschichte. Berlin 1961; 15. *Specht, F. H. K. v.*: Geschichte der Waffen. Vol. 1-2, Leipzig/Berlin n.d., Vol. 3-4, 1872- 1877; 16. *Thurnwald, R.*: Psychologie des primitiven Menschen. Munich, n.d.; 17. *Tokarew, S. A.*: Die Religion in der Geschichte der Völker. Berlin 1968; 18. *Weule, K.*: Der Krieg in den Tiefen der Menschheit. Stuttgart 1916; 19. *The Ethnological Notebooks of Karl Marx*. Assen 1972; 20. *Menschenjagden und Zweikämpfe*. Jena n.d.

Günter Guhr

2.1.8. Agriculture

The transition from the appropriation of natural food sources in the production process to the continuous production of plant and animal foods had a revolutionary effect on human history. It led

to the growth of the population, initiated the rapid development of

of the productive forces and opened up the possibility for the production of constant social surplus product. This created the conditions for further social progress. In order to characterize the significance of this upheaval, Childe proposed in 1936 [2: 71 ff.] (see also [16] [25: esp. 159 ff.]) to call it the Neolithic Revolution after the archaeological period of its implementation. In the meantime, the term agrarian revolution of the productive forces, which better characterizes the content of the process, is preferred. In terms of its historical significance, this process [6: 51 ff.] is on a par [310] with the Industrial Revolution of the 19th century and the scientific-technical revolution of the present.

The agrarian revolution was mainly initiated by transitions to plant cultivation. After the creation of basic conditions in the hunter society, above all a temporary sedentarization achieved through the development of productive forces, plant cultivation was probably brought about by women. In order to stabilize the supply of vegetables, they had developed the careful handling of local wild plants (systematic gathering, harvesting with stockpiling [14]) in order to alleviate the contradiction between production and consumption [MEW 13: 622 ff.], which rapidly intensified in the late and post-glacial period, and finally switched to the production of plant food through cultivation. The type and degree of implementation of plant cultivation and domestic animal husbandry were influenced by numerous factors, above all by climate, soil quality, natural flora and fauna, etc., as well as by the concrete necessity caused by population pressure to break more or less rigorously with the appropriating economy. In many cases, hunting and fishing were still of decisive importance for a certain period of time, alongside cultivation practiced with varying degrees of intensity. Domestic animal husbandry was developed almost exclusively in connection with plant cultivation.

The various forms of prehistoric plant cultivation [10] [13] [22] are categorized according to different aspects. According to the presence of the plow as an important production instrument, we speak of pre-plow soil cultivation (plowless cultivation in the form of planting sticks, digging sticks, hoeing, etc.) and plow soil cultivation. The type of plant irrigation separates rainfed cultivation and irrigated cultivation. According to the type of cultivated land, field cultivation (without plowing) is distinguished from arable farming (with plowing) as well as from horticulture and bed cultivation. The characteristic crop in each case differentiates, among other things, between the cultivation of tubers and grain crops. These terms are not used uniformly [9: 73 ff].

Pre-plow soil cultivation is at the beginning of all plant cultivation. Its origins and early history [10] [17] [18] [24] are only known in outline, and current knowledge can by no means be regarded as definitive in view of the uneven state of archaeological and botanical research in the world.

The cultivation of starchy tubers is still widespread in tropical forest areas in Oceania, South-East Asia, Africa and South America. The natural species richness of the tuberous plants is suited to different local conditions and favored the spread in the wake of historical contacts. Tuber cultivation, which probably began in the early post-glacial period, was originally of greater importance and was later overtaken by grain crop cultivation in certain areas. Taro (cultivated as dry and swamp taro) was probably first cultivated in Southeast Asia, yams there and in Africa, manioc, potatoes and probably also ba- tate in South America. Tuber cultivation exhausts the extensively used soil and often requires new fields. These were obtained by burning off the vegetation (so-called slash-and-burn) during the dry season. At the beginning of the rainy season, the tubers or cuttings were planted in the ash-fertilized soil with simple planting sticks without further loosening or at best with patchy soil loosening. Harvesting could take place over a longer period of time, as tubers persist in dry soil. In suitable tropical areas, the harvest period was extended by replanting over a longer period of time (permanent cultivation). Abandoned fields could be prepared again after several years of fallow. Tuber cultivation was often combined with the use of other plants. The cultivation of fruit trees and shrubs, especially banana and palm species, which was partly derived from [311] harvesting, as well as what was occasionally called

The cultivation of peanuts (developed in South America), beans, various vegetables, onions and cucurbits as intercrops. Domestic animal husbandry was often completely absent or limited to a few species, in Southeast Asia and Oceania to pigs, occasionally to dogs and chickens, probably later - especially in Africa and Asia - also to goats, large and herd cattle breeding was not developed among tuber growers. As part of the natural division of labor, tuber cultivation was usually carried out by women, while clearing was predominantly the task of men. Men were also responsible for fishing and hunting, which, however, did not produce high yields in the tropical jungle. Depending on the share of hunting in the food supply, ethnography speaks of hunter-planter cultures and pure planter cultures. The cultivation of grain crops took place primarily in border areas between temperate and subtropical climate zones, where the coexistence of seasonal vegetation in temperate climates and permanent vegetation in subtropical zones placed special demands on the economic management of the hunter-planters. Such favored areas were highlands and mountain slopes with dry summers and rainy winters, which rose from subtropical surroundings. Under the environmental conditions of the post-glacial period, large areas of wild grasses had spread there. Their floury, storable grains had more or less become the basis of the vegetal diet of hunter-gatherer groups. Under the pressure of the surplus population (often intensified by the influx of people from the drying, desolate grass steppes of the subtropical foothills), they began to domesticate the grasses through cultivation and selection (according to quantity, size, taste of the grains, spindles and other aspects).

Wild grasses were cultivated in different species at different times and in different areas. Wheat and barley species were first successfully cultivated in the ecologically favorable foothills of Asia in the 9th/7th millennium [25: 38 ff]. The domestication of maize took place in America and had begun around the 6th/5th millennium in the highlands of Mexico and Peru. It seems to have been preceded by the simple cultivation of pumpkin plants, amaranth, beans and other plants, which, like the later cultivation of maize, was only of secondary importance for a long time alongside appropriative forms of agriculture [20]. Rice originates from East and Southeast Asia and has been cultivated since at least the 4th century - initially as dry rice (upland rice). It was also preceded by the cultivation of other plants in Southeast Asia [19]. The cultivated genera of grasses grouped together as millet were also important early on in various ancient soil cultivation centers in Southeast and Southeast Asia, Africa and Southeast Europe and were probably cultivated in several places.

The land required for the cultivation of grain crops was also often obtained by so-called slash-and-burn farming. After more or less thorough sowing and additional loosening with digging sticks or hoes (these have probably only been significant since the Iron Age), the seeds were sown, often as a mixture, in the soil fertilized with plant ash. Recent grain crop cultivators with ancient technology put a few grains at a time into planting holes, as broad sowing requires too much seed and makes it difficult to keep the fields clean. Harvesting - often with harvesting knives made of stone, later metal (sickles) - concentrated on the ears. After threshing, winnowing and, if necessary, kilning or similar processes, the grains were stored in vessels, storage pits, storage buildings and silos [312], crushed in a mortar or on a grating stone as required and processed into porridge or flat cakes. The ploughless cultivation of grain crops essentially knew neither conscious fertilization nor crop rotation, so that the soil was abandoned after a short, often only one-time cultivation. Under normal circumstances, it quickly became wooded again and, after the fallow period, was again developed by slash-and-burn. However, where the fallow land also served as pasture for cattle and cattle browsing hindered reforestation, larger open areas were created from which the annual cultivated land was selected after fallow regeneration (field-grass farming).

In the highlands of the Near East, wheat and barley cultivation quickly became the dominant branch of food production. The sharp increase in the population due to more secure food supplies

population pushed for some intensification of farming activities, but above all for extensive expansion of cultivated areas. Extensive slash-and-burn clearances, especially on slopes, and the obstruction of reforestation by cattle browsing triggered soil erosion and other anthropogenic environmental changes that significantly influenced the fate of later inhabitants of these areas [MEW 20: 452 ff]. Increasingly, emigration [MEW 8: 543 f.] was forced from the primary centers of grain cultivation into the territories of hunters, fishermen and gatherers, many of whom switched to cultivation and animal husbandry over the course of centuries. By the 4th/3rd millennium, Europe, with the exception of the north, parts of North Africa and Southwest and Central Asia [25: 38 ff.] and other primary centers in South and East Asia were "neolithized", i.e. developed by peasant populations. In Central America, in the southwest of North America and in the Andean highlands of South America, maize cultivation spread, which slowly became established and was combined with the cultivation of other plants. The peasant immigrants dealt with the local ecological conditions. They cultivated the crops they had brought with them, domesticated local wild plants and eventually also adopted crops from other areas. In this way, they considerably expanded the number of cultivated plant species. In addition to several species of legumes domesticated early on in various continents, other grains (rye, oats, buckwheat, quinoa) and root plants, vegetables, oil, spice and fiber plants, fruit trees, etc. were used and cultivated. In various combinations with domestic animal husbandry or even with branches of the appropriating economy, a variety of economic and cultural types of peasant production emerged.

The development of artificial irrigation and the invention of the plow were significant events in the intensification of prehistoric plant cultivation. Irrigated agriculture began on a larger scale in the 6th millennium when, under the pressure of population growth, areas with irregular rainfall and finally dry areas in river valleys and in lake and swamp fringe zones were settled. Wheat and barley farmers associated with domestic livestock farming developed the valleys of the Euphrates, later the Tigris, Nile and Indus rivers, while other farming populations developed those of the Huang He, Yangtze Kiang, Irrawaddy and Mekong. Dry soils were irrigated and swampy soils drained through the construction of canal systems and bailers. Certain rivers - most famously the Nile - also bring the minerals needed for fertility regeneration with the mud that regularly covers the fields during the annual floods. In other places, mud was applied or plant residues were worked into the soil. The beginnings of irrigated soil cultivation also arose through the supply, damming and distribution of water from springs, rivers [313] or wells, especially in oases and subtropical high steppes. In the case of terraced soil cultivation on slopes, especially in Southeast Asia and America, irrigation by means of high-altitude dammed-up water resources, which were diverted and exploited step by step, probably also has prehistoric roots. Irrigation, along with the plow and draught animals (water buffalo), were also the prerequisites for the later cultivation of wet rice in East and South Asia. Oceanic ploughless tuber cultivators of modern times built small ditch systems to create favorable moisture conditions by draining or supplying water. The extent to which such forms of simple irrigation were already practiced by prehistoric producers is still uncertain. Irrigation cultivation enabled permanent use of land and regionally multiple harvests per year. It ensured an increase in yields and the stabilization of surplus production.

The plow drawn by animals (mainly cattle) is only attested by written signs from Uruk (Mesopotamia) at the end of the 4th millennium [4: 56, no. 214], but there are strong indications that it was already in use in this area several centuries earlier. Knowledge of the plow spread from the Near East to the Old World barley-wheat cultivation area with the Chalcolithic-Early Bronze Age cultural relations, and reliable evidence from northern Central Europe in the form of old plow marks and original plow remains has been known since the early 2nd millennium BCE at the latest [11]. The diversity of recent plow types [12] and their regional distribution

indicate that the plow was possibly invented independently in several areas, but in any case was further developed. For this purpose, soil-loosening instruments such as furrowing sticks [9: 83] [10], digging sticks, spades, less likely hoes, had to be equipped with traction devices and animal traction. Neither plows nor wagons were developed in pre-Columbian America.

The early plows were simple wooden instruments that were only capable of tearing up the soil and were used for intensive soil loosening in intersecting plows with narrow furrow spacing. Since the introduction of iron production, they have been equipped with iron fittings, especially on the share, and additional equipment (moldboard, wheel frame, pre-cutting knife, etc.). The intensification of agriculture resulted in further progress in accordance with the different characteristics of the natural environment in the course of prehistoric society. In the area of rain-fed agriculture in temperate climates, for example, tribes practising large-scale livestock farming and plough cultivation made further improvements in production - including through fertilization (with mineral or organic fertilizer in the form of calcareous soil such as marl, grass clods or manure, etc.), crop rotation, stabling of livestock, etc. - as well as in the harvesting, storage and utilization of the cultivated products.

Stable farming conditions developed on the basis of plow cultivation and large livestock breeding. The use of the plough, which was more productive than furrowing sticks and other implements, encouraged the transition to production by individual families (extended families) on their own account and thus the development of the farming community. Families who farmed with their own production tools and their own livestock appropriated the individually produced agricultural product and developed ideas of ownership of the plots of common land used over a longer period of time. The patriarchal organization of society was strengthened and social differentiation between farming families emerged. All of this contributed significantly to overcoming the gentile structure.

[314] The beginnings of domestic animal husbandry [1] [23] are also still largely obscure. Late and post-glacial hunters occasionally captured live wild animals (including individual bears) under conditions of temporary sedentariness in order to consume or sacrifice them as needed. The constant pursuit of herds of herbivorous animals (antelopes, gazelles, buffalo, reindeer, etc.) was also part of the practice of the hunter tribes. They obtained their meat and raw materials from them. Domestication apparently did not develop from these approaches. Among late and post-glacial hunters in Eurasia and the Americas, only wolf species - in some cases through self-domestication - became domesticated dogs [3].

Domestic animal husbandry as a branch of agricultural production emerged among harvesters of wild plants and early plant growers. According to current archaeozoological knowledge, the domestication of animals for food production was first carried out on herd-forming, frugal small ruminants (goats, sheep) in the Near Eastern mountain regions in the 9th/8th century, at about the same time as the introduction of cereal cultivation. Opinions on the forms, methods and motives of domestication still differ widely. In any case, its beginnings must have been the result of taming, which led to a breeding influence through continuous selection and manifested itself in increasing physical and psychological changes in the wild ancestral form. After the consolidation of agricultural production, the domestication of swine and capercaillie (Ur) began around the 8th/7th century among the tribes of the Near Eastern mountain regions and among influenced neighboring tribes. Similarly, wild animals were domesticated in other areas of early plant cultivation. Tuber cultivators in South and Southeast Asia and Oceania probably switched to pig farming in the early stages of the post-glacial period. Grain crop farmers in South and Southeast Asia domesticated local wild cattle (buffalo, gaur around 4th millennium BC, yak around 1st millennium BC). This gave rise in different areas and at different times to the combined crop-livestock economy with a broader and more secure basis of production that we commonly refer to as agriculture. It developed in a particularly significant way in the Near Eastern and Old World grain-growing center. In America, due to the lack of suitable tameable wild animals, it only occurred in the Andes region.

to the domestication of the guanaco to the llama (ca. 4th/3rd millennium), later of guinea pigs and in southern North and Central America of turkeys.

Prehistoric domestic animal husbandry was largely carried out in the open. The main part of the work was spent on herding and providing food and water. As strong animals were obviously slaughtered first in the interest of control, weaker animals were increasingly used for reproduction. Reduction in size was therefore one of the first features of domestication. This was accompanied by the preservation and sometimes deliberate breeding of mutants and the changes in limb proportions resulting from changing living conditions. Under conditions of openness, unintentional cross-breeding also occurred. This promoted the development of landraces. It was discovered early on (7th/6th century) that castration could facilitate the control of male animals and influence their meat production. Later, castrates were preferred as calm, efficient working animals (draught oxen).

Domestic animal husbandry gave rise to a new quality in human behavior towards animals. Initially, the use of meat and raw materials had still formally corresponded to hunting. The use of milk made the domestic animal a multiple and long-term source of food. Its annual caloric value could reach or even exceed the caloric value of the meat produced once during slaughter. Under the new aspect of the production of food and raw materials, gathering habits were also qualified and the domestication of bees and other small animals, presumably also of silkworm caterpillars, was taken up in various areas.

A further qualitative leap in the mastery of nature was the use of animal energy for pulling, carrying and riding. In the course of this discovery, several animal species were domesticated or bred for such purposes, above all cattle (in this function in the Near East since around the 7th/6th millennium, buffalo in India around the 4th millennium), camel, onager, donkey, horse [5] and others (around the 5th/4th millennium), horse-donkey crosses (around the 4th/3rd millennium). The taming of elephants in India probably dates back to the 3rd millennium. Hunters also used dogs as pack and draught animals in front of sledges and bows and adopted draught and riding animals from more advanced societies. Under the influence of cattle breeders, nomadism with tamed reindeer herds developed in the tundras of northern Eurasia from hunting roots in the 1st millennium BCE at the latest; reindeer were used for carrying and pulling.

The combined crop-livestock economy became the material-technical basis of many tribes in which the process of disintegration of primitive society took place. They spread out due to population growth, natural or anthropogenic environmental changes, as a result of displacement and for other reasons, and constantly opened up new areas of the earth, often by displacing or assimilating local hunters, fishers and gatherers. In adaptation to the local environmental conditions, individual species of domesticated plants or animals were abandoned, new species were domesticated and the characteristics of others were changed. In some places, the proportions between cultivation and animal husbandry were adapted to local conditions, with animal production favored in grass-rich areas and plant production in areas with fertile soils. Transhumance is characterized by permanent settlements with little plant cultivation in steppe fringes or mountainous areas as starting points for extensive grazing, especially with goats or sheep. In the dry areas characterized by steppes, semi-deserts or mountains with little vegetation - especially north of the Black Sea and east of it to Central Asia, on the Arabian Peninsula as well as in North, East and South Africa - livestock farming was intensified and a corresponding way of life developed. In addition to forms of semi-nomadism with seasonal settlement relocations, pastoral nomadism was developed as a special form of production in a prolonged process up to around the 3rd millennium, with further restriction or even abandonment of crop cultivation [7: 111 ff].

The way of life of the prehistoric pastoral nomads [8] [13: 91 ff.] [15] [21] was based on the traditional keeping of sheep and goats. In accordance with local conditions, camels (Bactrian camels and dromedaries) were also kept in varying numbers and species composition.

cattle and horses on the fringes of the arid zones. The nomads' diet consists of dairy products and meat, mainly from small livestock. The animals also provide raw materials, which - along with wood - are the most important basis of the material culture characterized by the nomadic way of life. Finally, the animals supported transportation on the nomadic trains. Their directions and times in a particular area and thus the entire annual cycle are determined by the possibilities of satisfying the animals' grazing and water needs and meeting the other natural needs of animals and humans (e.g. avoiding insect infestations).

The prehistoric pastoral nomads were organized into tribes according to genealogical principles. These ensured the production conditions for all members [316] and above all regulated the use of the limited winter or dry season pasture by the patrilineal (extended) families acting as production collectives. The grazing grounds - sufficient after the rainy season or in summer - were communal property. The herds, on the other hand, were the property of the families - largely under the control of their patriarchal heads. The size of the herd formed the basis for the pronounced but sometimes very unstable social differentiation among the nomads. They were only consolidated through ownership of wells and watering places, which wealthy families were able to build and exploit. They were thus in a position to bring others into dependency by granting rights of use to water points or by lending cattle to collectives that had suffered large losses of livestock and received some of the young animals born in return for herding borrowed animals. In this way, they forced social differentiation in a similar way to the gentile functionaries of the land-owning tribes by first annexing increasingly large parts of the surplus produce, exploiting dependent and unfree people and finally placing the means of production at their private disposal.

The transition to agriculture and thus the introduction of a constant production of surplus product formed the seed that sooner or later led to the overcoming of primitive society everywhere.

Literature:

- 1 *Brentjes, B.*: Die Haustierwerdung im Orient. Wittenberg 1965; 2. *Childe, V. G.*: Der Mensch schafft sich selbst. Dresden 1959; 3. *Degerbl, M.*: in: PPS 1961 (27), 5. 35 ff.; 4. *Falkenstein, A.*: Archaische Texte aus Uruk. Leipzig 1936; 5. *Hangar, F.*: Das Pferd in prähistorischer und früher historischer Zeit. Vienna/Munich 1956; 6. *Herrmann, J.*: Traces of Prometheus. Leipzig/Jena/Berlin 1975; 7. *Jacobeit, W.*: Schafhaltung und Schäfer in Zentraleuropa. Berlin 1961; 8. *König, W.*: in: EAZ 1974 (15), p. 454 ff.; 9. *Kothe, H.*: in: Die Nachbarn 1948 (1), p. 71 ff.; 10. *Ders.*: in: EAF 1953 (1), p. 28 ff.; 11. *Ders.*: in: EAF 1958 (4), p. 52 ff.; 12. *Leser, P.*: Entstehung und Verbreitung des Pfluges. Münster/W. 1931; 13. *Liedtke, W.*: in: Völkerkunde für jedermann. Gotha/Leipzig 1966, p. 68 ff.; 14. *Lips, J. E.*: Die Erntevölker. Berlin 1953; 15. *Markov, G. E.*: Kočevniki Azii. Moscow 1976; 16. *Masson, V. M.*: in: 4th Internat. Conf. of Econ. Hist. Paris 1973, 5. 291 ff.; 17. *Müller-Karpe, H.*: Handbuch der Vorgeschichte. Vol. 2, Munich 1968; 18. *Narr, K. J.*: Handbuch der Urgeschichte. Vol. 2, Bern/Munich 1975; 19. Das Altertum 1975 (21), 8.36 ff; 20. *Ders.* in: Modern Problems of Archaeology. Berlin 1975, 5. 103 ff.; 21. *Schinkel, H.-G.*: Haltung, Zucht und Pflege des Viehs bei den Nomaden Ost- und Nordostafrikas. Berlin 1970; 22. *Semënov, S. A.*: Proizchoždenie zemledelija. Leningrad 1974; 23. *Zeuner, F. E.*: Geschichte der Haustiere. Munich 1967; 24 *The Domestication and Exploitation of Plants and Animals*. London 1969; 25. *Evolution and Revolution in the Ancient Near East and Europe*. Berlin 1971.

Heinz Grünert

[317]

2.2. Ancient Oriental production methods

2.2.1. General characteristics of the ancient oriental mode of production

The transition from the pre-social to the ancient oriental mode of production was the result of a long process of decay in pre-society. This process took place in interaction with a development of the productive forces, which - above all in connection with progress in irrigated soil cultivation and bronze metallurgy - led to a considerably higher and relatively stable surplus product. There was a progressive division of labor, an expansion of exchange relations and cooperation beyond the individual community. At the same time, there was a dispute over the absorption and utilization of the socially generated surplus product and a growing social differentiation. This initiated a development that led to the emergence of classes and class antagonisms as well as the state. The establishment of a ruling class was favored in some areas - for example in the valleys of the Nile, Euphrates and Tigris rivers - by its leading and coordinating function in agricultural production. The state emerged as an instrument to secure the largest possible share of the surplus product for the ruling class and to maintain its power. This marked the beginning of a new phase in human history based on exploitation, social inequality and political oppression. However, the transition from primitive society to class society and the state was objectively necessary and represented historical progress.

This first mode of production based on the exploitation of man by man will be referred to below as ancient oriental class society. This refers to the area in which this society can be traced historically for the first time. The term patriarchal class society expresses one of its essential aspects, while the term first or early class society remains too general. Some typical phenomena, especially of the early phase of ancient Oriental class society, have been worked out by Marx in his studies on the "Asiatic mode of production".

The formation of ancient Near Eastern class society not only took place at different times within the framework of world-historical processes, but also led to different forms, albeit with similar characteristics and developmental tendencies. As far as can be ascertained so far, class society and the state first emerged in the Mesopotamian and [318] south-western Iranian regions and in the Nile Valley (4th/3rd millennium BCE). In the course of the 3rd millennium BCE, the first class society of the ancient Oriental type developed in India (Indus culture), and in China the primitive communal order was overcome around the middle of the 2nd millennium BCE. It is also possible that the early class societies of the Aegean region can be described as ancient oriental. In a number of other areas of Asia, such a development only became tangible in the 1st millennium BCE, in America around the turn of the millennium and in Africa in the first centuries CE. In large areas of the world, there was no overcoming of the primitive social relations of production during the existence of the ancient oriental class society. The main reason for the temporal differences and the development of variants of ancient oriental class society were the very different natural conditions under which this process took place. There were also specific historical and political factors. In India, for example, and on several occasions in the Near East, the continuity of socio-economic development was interrupted or hindered by an overlay of tribal groups that were still in the stage of the disintegrating primitive society. Marx already pointed out that "the same economic basis - the same according to the main conditions - can show infinite variations and gradations in appearance due to countless different empirical circumstances, natural conditions, racial conditions, historical influences acting from outside, etc., which can only be understood by analyzing these empirically given circumstances" [MEW 25: 800]. This situation complicates the characterization of ancient Oriental class society, its definition as a uniform economic social formation and its delimitation

towards both the ancient and the feudal mode of production. Marxist-Leninist historiography therefore still holds different views. In the "Ethnographisch-Archäologische Zeitschrift" [5] has published various articles on this problem since 1968.

In view of the relatively low level of development of the productive forces, which offered only limited opportunities to overcome the deficiencies and obstacles imposed by nature, the geographic milieu played an important role in the formation of ancient oriental class society. The degree of exploitation of natural wealth both determined and conditioned it. According to the basic ecological conditions, three areas in particular can be highlighted: the Nile Valley, southern Mesopotamia and Khuzistan (south-western Iran), where effective agricultural use of the land was only possible through large-scale irrigation systems. The need for this existed earlier in the elongated Nile Valley than in Mesopotamia. Then there were areas with locally limited irrigation systems, such as parts of India and China, and finally the rain-fed farming areas, which made up by far the largest part of the countries of the Ancient Near East. A further subdivision can be made if one takes into account the nature and relief of the soil, the possibilities for the expansion of arable land, communication routes, etc., as well as the abundance of raw materials. All these conditions contributed to the development of regional variants of ancient oriental class society. Nevertheless, a number of essential similarities can be identified which can serve to characterize this historically oldest form of class society.

Neither common property, which characterized the primitive communal order, nor private, i.e. individualized, ownership of the main means of production, land, which became the basic mode of production in later forms of society, were typical of ancient oriental class society. However, remnants of common property also played a role in ancient oriental class society. They were outlined by Marx in connection with his investigations into the "Asiatic mode of production" as follows: "This form, which is based on the same basic relationship, can itself be realized in very different ways. For example, it does not at all contradict it that, as in most Asiatic basic forms, the summarizing unit, which stands above all these small communities, appears as the higher owner or as the only owner, the real communities therefore only as hereditary owners. Since the unity is the real owner and the real precondition of communal property, it can itself appear as something special above the many real special communities, where the individual is then in fact propertyless, or the property ... appears to him mediated by the release of the total unity - which is realized in the despot as the father of the many commonwealths - to the individual through the mediation of the particular community. The surplus product - which, by the way, is legally determined as a result of real appropriation through labor - thus belongs by itself to this supreme unity. In the midst of oriental despotism and the lack of property, which seems to exist in it juridically, there does indeed exist as a basis this common or communal property" [MGr 376 f.]. The remnants of the original communal property were overcome at different rates in the centers of the Ancient Near East - first and most consistently in Egypt, last and only imperfectly in India. The village communities lost their character as collective owners. The originally still gentile ties were gradually pushed back by those of territory. On the other hand, forms of private property were already making inroads, with individualized and hereditary use of plots of land playing a role. The more forms of commodity production took hold of these communities, the more these property relations were able to become effective and disintegrate the oriental property relations. Engels remarks on this in connection with the emergence of private property:

"The more the products of the community take on the form of commodities, i.e. the less of them are produced for the producer's own use and the more they are produced for the purpose of exchange, the more the exchange also displaces the original natural division of labor within the community, the more unequal the wealth of the individual members of the community becomes, the lower the level of wealth becomes.

the old community of landownership is undermined, the more rapidly the community drifts towards its dissolution into a village of parcel farmers" [MEW 20: 150]. Engels has thus recognized a developmental tendency that can also be demonstrated in the most advanced areas of the ancient Orient. However, various factors - such as the role of the state or the ruler as the supreme lord of land and labor, the undeveloped nature of commodity production, the often still persistent attachment of the land to the communities - meant that private land ownership could not develop into the dominant production relationship in ancient Oriental class society. When this development finally prevailed, it took the form of feudal large-scale land ownership or - under the historical conditions of the area near the Mediterranean - political property. In both cases, however, this meant overcoming the old oriental class society.

The original common property was thus no more and private land ownership was not yet the basic relationship of production. Ancient Oriental class society was characterized by collective forms of ownership of the basic prerequisites of production, which could be state, institutional [320] or communal property. The state derived its claim to tributes or taxes and services from its function as landowner and/or sovereign. However, the direct producer did not lose access to the conditions of his production; there was no radical separation of the producer from the land. However, the development moved in the direction of an expropriation of small producers; the ruin of small farmers did not lead to slavery under the conditions of ancient oriental class society. It did not become the defining relationship of ancient Near Eastern society; private property and commodity production were still too weakly developed to provide a basis for it. The small producer, who was not separated from the land, was therefore typical; however, he could not dispose of the main prerequisite for his production, the land, as a real owner. He was faced with a corporately organized ruling class that was directly linked to the ruler, who - as representative of the state - delegated some of his powers as landowner and sovereign to them.

The state was the instrument for appropriating as much of society's surplus product as possible. By way of redistribution, these resources were then partly used for expanded reproduction - such as the construction of large-scale irrigation systems, dams, roads, etc. - and partly for the direct consumption of the ruling class. On the one hand, the state was an instrument of exploitation and plunder, but on the other it represented a higher form of organization of society. Its progressive role was particularly evident where it was able to act as the organizer and leader of large-scale cooperation. In the course of time, however, the oppressive function of the state came more and more to the fore, both internally and - through the subjugation and suppression of foreign peoples - externally. The organs of the state had essentially emerged from the institutions already existing in the period of dissolution of primitive society, but underwent a change in their content, became independent of the community and relegated its original organs to secondary powers. The more they detached themselves from an individual community, especially during the transition from the city state to the territorial state, the more closely they became linked to the ruler and dependent on him.

The form of the system of exploitation was determined in each case by the particular form of the underlying relation of production. "The specific economic form in which unpaid surplus labor is pumped out of the immediate producers determines the relation of domination and servitude, as it grows directly out of production itself and in turn has a determining effect on it" [MEW 25: 799]. Since the mass of producers was not separated from the means of production and the exploitation of the personally free agrarian producer was initially still limited by the continued existence of the village communes, the state's claim to the social surplus product had to be enforced primarily by means of extra-economic coercion. To the extent that the ruling class developed into the real owner of the land, and thus also seized the prerequisites of production, and the

As the mass of producers degenerated into dependent plot farmers, forms of economic coercion also gained in importance. Production relations emerged that were based on the exploitation of smallholder economies (household economies).

These conditions had an inhibiting effect on the further development of the productive forces and the application of new technical inventions - especially in the field of irrigation agriculture, which had made the greatest progress in the early period of ancient Oriental class society. Nevertheless, experience and the organization of work, further developments in bronze metallurgy and then the introduction of iron as a utility metal, the use of new means of transport, the introduction of new livestock and the acculturation of new plants led to a considerable increase in the social surplus product during ancient Oriental class society. At the same time, they enabled the emergence of larger cities, which became centers of division of labor and exchange and also - especially as royal residences - centers of consumption of luxury goods. It was precisely in the cities that art and culture found the conditions for development that stimulated them to great achievements. The ancient oriental cities almost always retained their close ties to the agricultural production of their area and remained the centers of small or larger agricultural areas.

In ancient oriental class society, the monarchical principle prevailed for the first time. It received its highest expression and typical form in the ancient oriental despotism. The despot faced his subjects - often in divine exaltation - as the supreme lord of land and labor. He claimed to be the owner or sovereign of all the resources of his land. The extent to which he was able to realize this claim depended on the specific power relations and was therefore different in the individual periods and regions of the ancient Near East.

On the basis of ancient oriental property relations, a complicated system of dependency relations and forms of exploitation emerged, which also found their legal formulation. The character of the class conflicts corresponded to the still undeveloped class relations, which were also veiled by religious ideas. The conflict between the exploited direct producers and the ruling class, which was closely linked to the king, gave rise to various forms of resistance, such as slow or ineffective work performance, refusal to work (e.g. strikes by Egyptian necropolis workers) and flight. There were also uprisings in which regional, religious and political objectives were combined with social demands. However, there was no clear program, and these actions were only directed against some of the effects of the ancient oriental system of rule and exploitation, not against the system itself. Nevertheless, during the period of ancient oriental class society, the masses experienced their own power for the first time and forced the ruling class to reform and modify its system of exploitation on various occasions. During this period, the class struggle began to become an essential driving force of social development. Contradictions within the ruling class led to disputes that were primarily fought over the largest possible share of the social surplus product and which often covered up the fundamental contradiction. Above all, they brought about changes in the political balance of power, which was mainly expressed in the change of dynasties, as well as a movement between centralization and decentralization of power. This did not bring about a fundamental qualitative change in the socio-economic basis.

The main means of production remained soil throughout ancient oriental class society; the relationship to the soil determined the basic classes of society. In connection with the increased efficiency of agricultural production, however, trade and handicrafts also experienced a considerable upswing, which did not remain without effects on agriculture. Crafts concentrated in the cities and began to specialize more and more. Rising needs and growing luxury consumption among the ruling class and a section of the

other city dwellers stimulated the import of raw materials, which were processed by local craftsmen. Due to the still limited development of the domestic market and state monopolies on long-distance trade, the independent crafts - like trade - remained closely subordinate to the ruling class and the king in particular, who were the primary clients. At the same time, commodity-money relations began to expand to an increasing extent and to play a role above all in the trading cities, which mainly developed on the Mediterranean coast, in the Cretan-Mycenaean area and in India. Overall, commodity production was only able to develop slowly under the conditions of ancient oriental class society.

In close connection with the expansion of trade and favoured by the development of small-scale farming as the typical organizational form of agricultural production, merchant capital emerged. "Interest-bearing capital, or as we can call it in its ancient form, usury capital, belongs with its twin brother, merchant capital, to the antediluvian forms of capital that long precede the capitalist mode of production and are found in the most diverse economic social formations. The existence of usury capital requires nothing more than that at least a part of the products be transformed into commodities and that, at the same time as the commodity trade, money has developed in its various functions ... Usury capital as a characteristic form of interest-bearing capital corresponds to the predominance of small-scale production, of self-employed farmers and small master craftsmen ... [MEW 25: 607 f.]. Usury capital was able to develop strongly in certain periods and areas of ancient oriental class society, for example in Mesopotamia in the early 2nd millennium BCE. Once it emerged, it never completely disappeared and, together with merchant capital, contributed to the emergence of a "monetary wealth independent of landed property" [MEW 25: 611]. Of importance in this context was the establishment of permanent forms of equivalence, especially of metals, i.e. the increasing role of money. Nevertheless, the profits from usury and trade transactions were still primarily invested in land. Due to its high interest demands, usury contributed to the ruin of the self-economic producer, which could not be stopped even by regulating state measures.

A characterization of the ancient oriental mode of production also requires reference to the peculiarities of the ideological superstructure. Developed in confrontation with pre-social ideologies and traditions, it has retained numerous relics of the social formations that have been overcome. The expansion of tribal groups that still lived in pre-social conditions into the central regions of ancient Oriental class society temporarily strengthened these pre-social ideas and traditions, which delayed their final overcoming. Institutions, traditions and ideas from the time of the gentile society have been preserved, especially among the masses, and often became an expression of protest against the official ideology that justified and thus supported the prevailing exploitative conditions. The ideological superstructure was determined by religion, which took very different forms in the individual regions of the ancient [323] Orient. It was

z. In part, it was still linked to magical and totemic ideas of the primitive social order and remained essentially ethnically or locally bound. This local connection initially persisted even in the case of political and military expansion - such as that of the Assyrian state in the early 1st millennium BCE. The ethnic connection - which can also be seen in the development of monotheism among the Israelite tribes - and the local connection were broken by the emergence of Hinduism and Buddhism, first in India and later in China, and then with the teachings of Zoroaster in Iran. In the Near East, Christianity and later Islam replaced ritual-magical ideas with ritual-ethical ones, whereby these creeds, which developed into world religions, were combined with dogmas. However, some of the older religions of ancient Oriental class society already contained the expectation of a better existence in the afterlife, which reflected the isolation of people who had been detached from the closed system of primitive society, which in turn was caused by the underlying socio-economic conditions. In the

As social conditions changed in large areas of the world, the religions of redemption also began to play a greater role. As religion was the dominant ideology, social protest and the fight against foreign oppression were often clothed in religious form.

At the same time, forms of scientific thought began to develop during the time of ancient oriental class society, which were later adopted by ancient and feudal society. Philosophical systems were formed, with both idealistic and materialistic schools of thought emerging and fighting each other. This philosophy, which emerged primarily in India and China, was able to make initial progress, particularly in logic and in a materialistic understanding of the world. Scientific views and knowledge developed in close connection with practice, especially with agricultural production. The foundations of astronomy, mathematics, medicine, history and linguistics were laid without theoretical generalizations, theorems and rules. Achievements were also made in mechanics, which later societies were able to follow on from.

The invention and further development of writing also played an important role in economic development. In accordance with the requirements of the increasingly complicated socio-economic relationships, writing systems developed in various centers of the Ancient Near East - first in the Mesopotamian-Iranian and Egyptian areas (4th/3rd millennium BC); the Syrian-Phoenician letter system was then adopted and further developed by the Greeks in the early 1st millennium BC. Not only economic processes, but also literary narratives and historical events were recorded in writing; this led to the development of various literary genres. In addition to the main motifs, which were taken from the religious sphere or served to glorify members of the ruling class, doubts about the justice of the existing social order were also expressed, as well as efforts to overcome the devaluation of human beings in an exploitative society and to arrive at humanistic ideas. The social contradictions of ancient oriental class society were thus also reflected in literature; they were also expressed in collections of laws, decrees and other legal documents. The visual arts produced a variety of forms, and for the first time the beauty of the human being was discovered for depiction. The monumental architecture developed above all in the Near East, then also [324] in other regions, testifies that great wealth had accumulated in the hands of the rulers; at the same time these buildings are proof of a highly developed organization of labour as well as of considerable technical experience and skill.

During the era of ancient oriental class society, class society and the state developed in more and more areas of the world. In the central Mediterranean area, the ancient class society emerged in the early 1st millennium BCE, following on from older state formations and under the influence of the Near East. This in turn also influenced the areas of the Orient close to the Mediterranean and contributed to the further disintegration of the ancient Oriental conditions. In most areas of the ancient Near East, the ancient Oriental mode of production was replaced not by the ancient, but by the feudal mode of production. This was a process that produced different manifestations in the individual areas of the Orient and proceeded in different ways over time.

Literature:

1. *the emergence of the state*; 2. *problemy dokapitalističeskich obščestv v stranach vostoka*. Moscow 1971; 3. *the role of the masses in the history of pre-capitalist social formations*. Berlin 1975; 4. *world history up to the emergence of feudalism*. Berlin 1977; 5. *periodization discussion of pre-capitalist class societies*, in: EAZ 1968 ff.

Horst Klengel

2.2.2. Mining

Experience [6] [19] and instruments [2] from Neolithic mining made it possible to successfully develop ore mining after the smelting of the metals gold, silver, lead and copper [1] [4] had succeeded. Even more than the possession of good tool stone (obsidian, jasper, flint), metal ownership meant economic power that could be felt by the non-owner. The ore deposits that could be exploited with the technology of the time brought about an economic privilege that gave rise to metal exchange, which also used Neolithic forms of trade and transportation routes.

Even with the very slow turnover of innovations, the transition from stone to metal was a sharp turnaround for most regions - technically they were anyway. On the one hand, ore-poor areas were left behind despite the advanced development of agriculture, animal husbandry and social organization; on the other hand, despite unfavourable climatic and settlement topographies, centers of metal production rose to significant heights, but in many cases became directly or indirectly dependent on older cultural centres with tighter organizational structures. It became apparent surprisingly early on that it was not actually the mining centers, but the metal transshipment points, which were usually identical to the political center of gravity, that gained key positions.

It is not possible to determine whether ancient Egyptian and Mesopotamian metal merchants acted on behalf of the state or on their own initiative. The ancient Assyrian merchants [7] were independent entrepreneurs. In any case, a trade route of more than 1,000 km had to be overcome for a metal-poor but highly developed political center, [325] which was by no means a unique situation, but could also occur in China and India. The production costs of the metal, which was generally produced at the mining site itself, were reflected in the high cost of living for the smelters (and ore collectors), which often resulted in unsuccessful smelting attempts. However, the early metal trade did not focus solely on this in its changing valuation of the metals, but rather, in addition to aesthetic qualities and the exclusive value of "rarity", it primarily assessed the usability and reusability through reshaping. Ignoring the "utility value" caused lead and iron to be undervalued in the early days, while malleability ensured that all bronzes were always held in high esteem. Accordingly, the efforts to obtain this or that metal were functionally dependent on the traders' valuation.

Economic history up to the 18th century CE is sometimes limited in its statements regarding metallurgy [11] because terminological difficulties have arisen since the very beginnings of metallurgy. For a long time, lead/tin/bismuth remained linguistically indistinguishable [8], electrum/bronze/brass were not regarded as alloys but as genuine metals, zinc and cobalt were only used as metal oxides. Above all, there were usually no designations for the various ores, which made technical and economic statements difficult. In addition, a large number of by-products and minerals [5] were used commercially very early on, often as intermediate products for textile dyes, cosmetics and medicines.

The earliest tangible example of this is the high-yield mining center on the Sinai Peninsula, which was operated in the special form of seasonal mining [20] and included the Timna district on the Gulf of Aqaba [16]. The oxide copper carbonates found there, which were particularly easy to smelt, prompted the pharaonic empire to undertake its first known expansion for mining and economic reasons around 2700 BCE. The military expeditions from the metal-poor Nile Valley worried the Semitic miners, but it mostly remained a matter of demonstrations, as the Egyptians, who were foreign to mining, were dependent on the local mining experts - as is clear from their mention in the writings. There was no permanent occupation of the mountainous, desert-like peninsula, but there was economic integration. The Egyptian military took over the mere transportation services, while the Semitic experts managed the mining and metallurgical work and received Egyptian cultural exports in exchange. This took place around 1800 BC.

u. The needs of the local miners led to the creation of their own typeface - a very significant fact in terms of economic history, because the newly developed typeface was not intended to have a monumental effect, but rather to be used for the commercial marking of services and quantities.

The technical achievements are remarkable in many respects, even if it is difficult to grasp the development that has taken place. We find very clean work in the rock with complete utilization of accessible ores, mortar fragments, partly difficult to interpret furnace remains, also an advance to heights above 1,500 m, but hardly any tools - in contrast, some rows of uniform miners' huts as an early foreshadowing of the city-building power of the mining area. The intensity varied greatly; in Timna [17] there was lively activity around 2900-2700 BCE, followed by 1200 years of standstill.

In view of the importance of copper for the beginnings of metallurgy [1] [11], the considerable development of all copper-producing areas is understandable, whether we think of [326] Cyprus [3] [21], Aramo in Spain [4] or the Caucasian-Iranian deposits [17] [23] and those in China and India [12] [14]. Everywhere it was first used as jewelry, then as a utility metal for weapons and finally for tools and household appliances, after it had been successfully hardened by alloying with arsenic and antimony - tin was not initially available. The first antimony/arsenic bronzes may have been "found" through accidental additions, but they are so widespread that the deliberate and measured addition of corresponding minerals was clearly "invented". How the necessary knowledge of the alloying technique was disseminated - whether such elementary production experience could be purchased or the disclosure was forced - is beyond our comprehension.

Independent ancient Egyptian mining can be recognized in the gold mines [13] of the Wadi Hammamât - no locals helped in these uninhabited desert areas. A magnificent map of the "paths that lead to gold" was created around 1200 BCE for their economic development; there are also reports of expeditions and well sites. Otherwise, however, the pharaohs sought to acquire gold dust in Nubia and in the incense country of Punt. For Palestine, Syria, Asia Minor and even Mesopotamia, Egypt was the gold country par excellence around 1350 BCE. The pharaohs deliberately used this coveted precious metal, which was sometimes heavily alloyed with silver, in the service of their politics and diplomacy. Images never report on ancient oriental mining, while metal processing is depicted in detail; the determination of weight for the commercial valuation of raw material and finished product is also rarely missing from the repertoire of images.

In asphalt-rich but ore-less Mesopotamia, which was always dependent on imports, arsenic and antimony [9] [10], which were so difficult to produce metallurgically, were used for vessels as early as 2500 BC, alongside gold and silver, copper and lead. Then tin and meteoric iron [12] were discovered. Best known from numerous clay tablet documents is the ancient Assyrian metal trade in Asia Minor [7] around 1900 BCE: here gold appears for the first time as a "currency" to which all other goods were converted; it was not an object of trade. It should be emphasized that the Assyrian merchants did not trade individually, but as a corporation, which can be explained by the high risk involved in long-distance trade. They did not deal directly with the metal producer at the production site, but with merchants in trading centers. They concluded forward delivery contracts with them; in the case of immediate metal takeover and "payment" (by equivalents), they seem to have dispensed with notarization - this makes it impossible to determine the quantities traded; objects included silver from Asia Minor in exchange for "Assyrian" tin, perhaps from Iran. - The widespread metal trade is hardly comprehensible in detail, but only in generalizations from found objects. It must be taken into account that some objects that were gloriously described as "tribute" may have been trade goods that were paid for dearly. The interethnic exchange of trade items, and even more so that of production experience, is all the more astonishing as it encompassed a broad spectrum of special products from the mining sector [5] [9]

[11] [15], such as the oxides of manganese, zinc and cobalt used in glass technology, which remained unknown as metals.

Before 1500 BCE, the art of extracting terrestrial iron hardly appeared [12], but by 1400 BCE it had become a common practice.

Z. in Asia Minor, which was ruled by the Hittites. According to cuneiform reports, the mountain peoples there were not able to do this continuously at first, as setbacks were inevitable. Economically, it is noteworthy that the price of iron, which was initially valued higher than gold, fell very quickly. The [327] Hittites were not able to maintain the privilege for long; the 'secret' soon became generally known. Astonishing iron reserves as early as 880 BCE are evident from Assyrian booty in Syrian cities, which is confirmed by the discovery of 160 tons of iron flakes during excavations in Khorsabad. The often mentioned, but hardly comprehensible 'metal trade' of the Phoenicians has been brilliantly confirmed by underwater archaeology: Off Cape Gelidonya [21], the oldest find of a wreck to date, datable to 1200 (\pm 50) BCE, was made with a cargo of metal ingots (copper from Cyprus, tin from England). The Phoenicians and Carthaginians kept the sea route there secret for almost a millennium. It was not until the time of Alexander the Great that a Greek merchant from Marseille undertook an exploratory voyage across what was then still Celtic France, which then took him far north by sea beyond the 'tin island' of England.

Indian mining is only visible in outline from the beginnings in Mohendjo Daro around 2700 BCE up to the somewhat more precise indication in the Arthaśāstra of Kautilya [20] [21]. Here it becomes clear for the first time that efforts in mining and metal processing were understood as obligatory elements of state economic management - an insight into economic necessities that was not always understood even in antiquity.

Literature:

- 1 *Aitchison, L.*: A History of Metals. London 1960; 2. *Andree, J.*: Bergbau in der Vorzeit. Berlin 1922; 3. *Davies, O.*: in: *Annales of the British School of Athens* 1932 (30), p. 74 ff.; 4. *Gmelin, L.*: *Handbuch der anorganischen Chemie*. Vol. 3 ff., Weinheim 1952 ff.; 5. *Harris, J. R.*: *Lexicographical Studies in ancient Egyptian Minerals*. Berlin 1960; 6. *Jahn, M.*: *Der älteste Bergbau in Europa*. Berlin 1960; 7. *Landsberger, B.*: in: *Journal of Near Eastern Studies* 1965 (24), p. 285 ff.; 8. *Larsen, M. T.*: *Old Assyrian City State and its Colonies*. Copenhagen 1976; 9. *Levey, W.*: *Chemistry and chemical Technology in ancient Mesopotamia*. Amsterdam 1959; 10. *Limet, H.*: *Le Travail du métal au pays de Sumer au temps de la III^e dynastie d'Ur*. Liège/Paris 1960; 11. *Maréchal, J. R.*: *Reflexions upon prehistoric metallurgy*. Lammersdorf/Aachen 1963; 12. *Neumann, B./Wilsdorf, H.*: *Die ältesten Verfahren zur Erzeugung technischer Eisens*. Berlin 1954; 13. *Quiring, H.*: *Geschichte des Goldes*. Stuttgart 1948; 14. *Ray, P. C.*: *History of Chemistry in Ancient and Medieval India*. Calcutta 1956; 15. *Rickard, T. A.*: *Man and Metals*. London 1932; 16. *Rothenberg, B.*: *Timna - Valley of the Biblical Copper*. Bochum 1973; 17. *Selimchanov, I. R.*: *Enträtselte Geheimnisse der alten Bronzen*. Leipzig 1974; 18. *Smith, C. S.*: *A History of Metallography*. Chicago 1960; 19. *Willert, H.*: in: *Bergbau-Rundschau* 1951 (3) H. 6, 270 ff.; 20. *Wilsdorf, H.*: in: 1.3.8. *Montangeschichte*; 21. *Ders.*: in: *Bergakademie* 1953 (5), p. 108 ff.; 22. *Ders.*: in: *Lexikon der frühen Kulturen*. Vol. 1 ff., Leipzig (in print); 23. *Wilson, N. W.*: in: *Mining Magazine London* 1946 (74), p. 277 ff.

Helmut Wilsdorf

2.2.3. Ownership structure

Even in the last period of primitive society and with the transition to the first form of class society, the ancient oriental society, a profound change in property relations took place. The "common ownership of the conditions of production" [MEW 23: 354] disintegrated, as the growing productive forces called for a change in these conditions of production.

The form of property that determined the character of all subsequent class societies, private property, began to dominate. "Private property, as the opposite of social, collective property, exists only where the means of labor and the external conditions of labor belong to private individuals" [MEW 23: 789]. This is the private appropriation of the means of production, which divides society into classes and is characterized by the exploitation of man by man.

Each class society formation brought with it its own typical form of private property, which decisively shaped the character of this formation. Other forms of ownership also existed. On the one hand, relict forms of past social formations could continue to exist and develop again and again due to certain historical conditions, e.g. forms of property ownership. These came to life when tribes living in pre-social conditions invaded the class societies of the Ancient Near East and overlapped them. On the other hand, the last stage of a social order also gave rise to the germs of new forms of ownership, which only became dominant in the next higher order. The development of private property up to its highest form, capitalist private property, was not an uninterrupted process from one stage to the next. There were detours and regressions in the historical development [12: 33], in which a historically progressive form of property could be temporarily displaced again, e.g. by migrations of peoples, wars and the associated conquests of highly developed societies by less developed ones. According to Marx, there are "two very different kinds of private property, one of which is based on the producer's own labor, the other on the exploitation of other people's labor" [MEW 25: 792]. The former, "self-produced private property based, so to speak, on the interweaving of the individual, independent laborer with his working conditions" [MEW 23: 790] or individual private property based "on his own labor" [MEW 23: 791], played an important role in all ancient societies. Individual private property was the economic basis of the small free producers, but at the same time the basis for the emergence of private property based on exploitation. Ancient Near Eastern private property in its two forms, which were characterized by certain peculiarities corresponding to the conditions of production, represented the historical precondition for ancient private property.

When, in the last period of primitive society, collective farming (joint cultivation and harvesting, joint distribution and consumption relationships) was gradually replaced by individual economic management as a result of increased productive forces, there was the real possibility of appropriating important means of production for the production process, e.g. agricultural tools and livestock. This provided an incentive not only for individual production, but also for individual appropriation of the product produced. This development resulted in the achievement of a higher surplus product.

When the product produced was no longer consumed communally but predominantly individually, the redistribution of land was only sporadic and eventually ceased completely.

The differences in distribution relations led to the division of society into rich and poor. The division of labor and increased productive forces made it possible to employ foreign labor - initially mostly from other tribes - in the agricultural and artisanal production process, who were given a socially inferior status. In certain areas, this led to the [329] differentiation of society into free and slave. The economic and social contrasts gave rise to classes. The majority of society faced an exploitative minority. The destruction of the Gentile constitution brought about by these processes paved the way for the emergence of a political power that became independent of society: the state [MEW 21: 165].

The new socio-economic quality of the concept of property, the individual private ownership of the means of production based on the producer's own labor [MEW 23: 789 f.] [MEW 25: 815], emerged in connection with these lines of development. It destroyed the old common property from within and at the same time brought forth the second form of private property, the old oriental private property based on the exploitation of man by man. Individual private property first developed in mobile means of production (mechanical means of labor), later in immobile means of production, in the land and also in human beings themselves in the form of slaves [MEW 3: 22]. The development of individual private property based on exploitation took place in the three main areas of production at the beginning of the development of class society: agriculture, animal husbandry and crafts. The development of property in these three areas could vary in intensity. This depended on the historical

development conditions in which the production process took place. Private ownership of the means of production was more prevalent in crafts and livestock farming than in agriculture. Although private ownership of land became economically emancipated, it remained legally tied to a community (town or village community) for an extraordinarily long time. This binding only loosened in the Imperium Romanum and in the late Oriental states with the transition to feudalism [11: 16].

When the center of historical progress shifted from the rain-fed farming areas of northern Mesopotamia [1: 117] to the large river valleys of the south in the 5th and 4th millennia, economic and social development intensified. These areas required developed irrigation soil cultivation. It was made possible by the socially determined development of the simple cooperation of labor and the emergence of metallurgy [MEW 23: 353]. The development of the two forms of private property from the original common property is difficult to document from sources in such early times (5th/4th century). We can only draw reliable conclusions in this area to a large extent from evidence of later state formation. In one of the earliest areas of historically progressive development, Mesopotamia, these processes can only be recorded in their final phase, in the immediate transition period to the ancient oriental class society [13: 50].

According to the oldest Mesopotamian purchase contracts for fields (1st half of the 3rd millennium), there were three types of ownership: 1. individual ownership of land by groups of the community (extended family) or individual families (an ever larger part of the communal land fund became the property of small producers. However, this process was extremely slow); 2. the land owned by the head of the community (the priestly prince) and the aristocracy; 3. the remnants of communal property, the so-called land reserve of the community. Since the state in Mesopotamia developed in the form of a temple-city-state, the head of the community was a priest-prince, whose special ownership of land was evidently made up on the one hand of larger land allocations from the communal land used for agriculture, and on the other hand of the occupation of the community's land reserve [13: 51]. But the prince-priest and temple aristocracy were already able to expand their land fund by purchasing fields. Foreign laborers - slaves - were used on a large scale in their fields. The form of private ownership of land based on exploitation was concentrated in this emerging ruling class of society. The forms of ownership had not yet shed their gentile shell. They could only ever exist within a specific community (village community or temple city-state) and were bound to it. There was obviously an urban center around the temple(s) on the territory of the early Sumerian temple city-state, but village communities were also part of it. Belonging to a community in the temple city-state or to the cult community of a temple as a fully entitled member guaranteed the small producer his individual land ownership, the aristocrat his large land ownership. However, only the property relations in the urban center are documented in the sources, while we hardly know anything about the property relations in the village communities [1: 184].

The three types of property appear in the sources in concealed form. Since the priest-prince represented the unity of the community in his person, he also had control over larger parts of the surplus product, just as he had command over the community's workforce. This applied both to socially necessary public work and to work for his own benefit. As a result, he appeared to the outside world to be the superior owner of all the community's land - a merely fictitious claim, stemming on the one hand from older ideological ideas and on the other from economic and political necessities. Under the given historical conditions, centralization and control over the labour force was necessary (irrigated agriculture, low labour productivity, great dependence on geographical factors, protection of the community).

Other circumstances also played a role: e.g. an as yet undeveloped individualized relationship of exploitation; ideological factors such as the role of the priestly prince as the representative of God towards the community; the membership of the community members in the cult community

of the god or gods of the city-state; the religious idea that the god of the city-state was the owner of all the land of the community [1: 185].

In bourgeois Oriental studies, this fictitious claim to superior ownership of the land by the priest-prince is regarded as a real fact because the production relations are not analyzed or are analyzed incorrectly. This is expressed in the designation of the early Sumerian type of state as "theocratic state socialism" [19: 47 ff., 628].

In Marxist Oriental studies, too, there are differing opinions regarding property relations in the Ancient Near East. The range of hypotheses extends from the assumption that common or communal property prevailed in the Orient until modern times [15], to the recognition of private property-like tendencies [6] [7] [8] [9] [10], to the recognition of private property since the middle of the 3rd century at the latest [1] [2]. According to D'jakonov, there were two types of property in all ancient Near Eastern states, state and communal or private property, whereby private property was actually only to be understood in the sense of non-state property. Private property did not belong to individuals, but to members of certain community collectives who were fully free. According to D'jakonov, the property of the village communities and their members was completely independent of the property of the state; the Ancient Near East had never known "fully free private property" [10: 132]. However, Marx warned against taking "a very definite legal conception of property belonging to bourgeois society as absolute" [MEW 25: 629]. "... the juridical conception [331] of free private property - occurs in the old world only at the time of the dissolution of the organic social order and in the modern world only with the development of capitalist production" [MEW 25: 629].

In the following period (2nd half of the 3rd millennium BCE), the development of property relations in Mesopotamia went in two directions. The ties of kinship in the village communities continued to decline. The neighbourhood community of class society emerged with its sharp social differentiation, embedded in the system of state exploitation and deepening individualized relations of exploitation [4: 13]. The "transformation from a collective ownership of land into a collective of owners" took place [13: 53]. The kingship emancipated itself from the old temple aristocracy, which we mainly encounter in the form of the temple priesthood, and created its own economic sphere, the royal economy. Archaeologically, this can be demonstrated by the separation of temple and palace. The royal land could be formed from three funds: from the community's land reserve, which was soon exhausted, from legal land purchases, e.g. the obelisk of the Akkad king Maništušu via land purchase (330 ha of arable land for about three hundredweights of silver) [18: 111], and from the theft or confiscation of temple land. The latter can be clearly seen in the reform work of Urukagina (Uruinimgina, 2360 BCE) [1: 189].

The development of property relations initially culminated in the Old Babylonian Empire (1st half of the 2nd millennium BCE), in which the two main types of property were established for the first time in world history: individual private property and property based on exploitation. Exploitative property existed in the form of royal land ownership, the land ownership of the priestly aristocracy and, when the third division of labor was completed, a wealth or money aristocracy. The possession of money now played a major role in the private ownership of mobile means of production. There was the individual private ownership of land by small producers and the mobile private ownership of craftsmen and herdsman. The development of the various forms of ownership went hand in hand with the generation of a higher surplus product, higher labor productivity and the development of commodity-money relations and commodity production corresponding to the level of productive forces at the time. This led to a more rapid development of property ownership and a further development of ancient oriental production relations.

There was a dialectical interrelationship between the two forms of property. Under the conditions of commodity-money relations, the individual private property of small producers was constantly threatened (with ruin) by usury and merchant capital and the competition of larger landed property, and became dependent on the usurer or large landowner, who was often the owner of the land.

appeared in personal union. The large landed property of the ruler, the temples and the moneyed aristocracy, based on exploitation, represented the historically most progressive form of private property. But small individual land ownership developed again and again, e.g. through the development of land in the peripheral areas of the large river valleys, through controlled colonization and repopulation of land that had been depopulated by war or epidemics. Sometimes former state land was also privatized - through donation or a period of turmoil on the throne. Frequently, small, free land ownership was created through state decrees against the indebtedness of small individual producers. Due to the low level of labour productivity and the vulnerability of small landownership, there was always a tendency to monopolize the land in the hands of the ruling class - the king, the temples, the aristocracy.

[332] The achieved level of development of property relations proved to be less stable. Massive invasions of river valley civilizations by tribes living in primitive society often led to an overall social setback and the partial regeneration of primitive social property relations, but this never happened for long periods. After two to three generations, the conquerors were assimilated by the class society and the influences of gentile society were largely pushed back. In Mesopotamia, there was a setback in development and the associated property relations due to the invasion of the Kassites (around 1530-around 1160 BCE). In the 16th century BCE, Kassite kings bought land from clan chiefs when they wanted to grant land ownership to their officials. These clans had established themselves as warrior nobility over the local population and owned larger areas of land with villages and farmers [3: 33]. Similar to Kassite clan property, Hurrian brotherhood property was a remnant of collective property relations. In Artapcha (a kingdom that was dependent on the Mitanni Empire) around 1500 BCE, the land was still formally owned by the community, but land was already being bought and sold. This took place in two forms. In the first form, the seller was adopted by the buyer and thus became a member of the buyer's clan; in the second form, the buyer joined the brotherhood of the land seller. But here too, social differentiation progressed rapidly. As a result, the remnants of collective forms of ownership disintegrated [14: 59].

The aforementioned development processes and the emergence of private property also took place in a more or less differentiated manner in other river valley civilizations, for example in Egypt at the same time as in Mesopotamia. Here, more than in Mesopotamia, the large-scale water regulation, which is to be understood as a long-term process, demanded a uniform management and created the possibility for this management to gain control over the distribution of water. As a result, contradictions soon arose between the central authority and the peasant producers living in village communities. Their land ownership was initially guaranteed by the communal ownership of the land. As early as the Thinite period (2985-2665 BCE), the central authority began to develop new land on a large scale, so that royal domains were soon scattered across Egypt. The people who worked on them were produced by the surplus population of the old village communities. The rapid establishment of a civil service tied to the pharaoh personally weakened the local nobility, and thus, unlike in Mesopotamia, it was eliminated as a political power factor at an early stage. The royal domains with their opportunities for cooperation and specialized division of labour, which allowed for a more effective use of tools, livestock and people, were very soon superior to small-scale farming. As early as the Old Kingdom (2665-2450), the domain economy became the dominant economic form in Egypt; the old village communities were integrated into the domains or transformed into domains [20: 198]. The state had effectively become the owner of all the land; the direct producers did not own the land and were subject to the command of the pharaonic civil service. In the New Kingdom (1562-1080 BCE), with the collapse of the domain economy, the parcel economy of small producers on state and temple land prevailed, whose owners succeeded in acquiring ownership-like rights to the land. However, it was not until the end of the New Kingdom that the individual private property of the "citizens of Pharaoh's land" [20: 212] developed on a broader scale. With the acquisition of property rights to the land began the process that we can already trace earlier in Mesopotamia - the struggle

of large-scale land ownership, which was based on exploitation, against small individual private property. The large landowners - the state, temples, high officials and officers - succeeded time and again in turning the small landowners into dependent parcel farmers.

For the time being, we know very little about the ownership structures in Bronze Age river valley societies further east, which developed later, e.g. the Indian Harappa culture (from around 2800 BCE).

Although the first historically tangible state in China dates back to the Shang (Yin) dynasty from around the 16th-11th century BCE, we must assume that the first state in China existed until the 1st half of the 1st millennium BCE.

u. C. land was owned jointly by the village communities. These were still self-sufficient units with communal production and communal appropriation of the products, linked by a kinship structure [20: 251]. The members of the village community were obliged to pay taxes and provide services to the ruling classes that had emerged from the tribal aristocracy. The king was the supreme representative of the community [20: 251] and as such had power of disposal over the resources of the state and command over the subjects.

Important social changes only took place again from the end of the 2nd millennium BC onwards. The development of the productive forces took a significant upturn with the introduction of iron for the manufacture of the means of production. This resulted in new technologies, advances in irrigation technology and made it possible to open up new geographical areas that could not previously be developed to any great extent using bronze technology. Vast areas of the Near East and the East, outside of the river valley societies, were included in the development of class society on an Iron Age basis. The first half of the 1st millennium BCE is characterized by great empires (Neo-Assyrian, Neo-Babylonian, Achaemenid empires), in which the polarization of class forces came to a head. The contrast between the ruling class in the form of cooperative and increasingly individual large landowners [17] and the oppressed class, especially the expropriated small producers, intensified. The number of free peasant producers decreased more and more, and they were replaced by dependent crown peasants or those who were dependent on large estates in their various forms (ecclesiastical and secular). This meant that large-scale land ownership based on exploitation had largely replaced the individual private ownership of small producers. The large estates of the king, the aristocracy and the temples increasingly employed slaves and free labor (hired labor). The number of tenancies and military service loans on temple and royal land increased [16: 12].

The cities became an important factor in economic development. This is where the majority of the free population [16: 16] of the ancient Near Eastern states was concentrated. Some cities, which had large economic resources or a religious monopoly, were able to free themselves from state tax and service obligations without, however, gaining full political freedom of movement. The privileged upper classes of the large cities were sometimes able to intervene in the power struggles between the central authorities and the large landowners (some of whom they themselves belonged to). This led to the development of special trading cities, of which the Phoenician coastal cities in particular achieved great importance (end of the 2nd millennium BCE). Here, new forms of ownership developed in urban areas that still existed within the ancient Oriental state system. An advanced division of labour, artisanal specialization and developed commodity-money relations already pointed beyond the economic basis of the ancient oriental social formation [20: 186]. In addition to usury capital, trading capital gained in importance, as evidenced by the existence of large private banking houses. Trade and commercial capital began to emancipate themselves from the state monopolies. Private merchants and traders existed alongside the state sector - often organized in corporations [20: 190]. Urbanization spread to areas outside the old, economically highly developed centers [16: 11] (parts of Judah, Colchis, Iberia, Asia Minor, Armenia). In the urban centers, the development of private property progressed particularly rapidly.

The development of land ownership in the ancient Near East culminated in the Achaemenid Empire. The most significant development was the increase in large-scale private land ownership in the most important centers with increasing impoverishment of the peasant masses [5: 123]. In some areas of the empire, e.g. in Babylonia and Judah, there is no evidence of village communal property in the Achaemenid period [20: 228]. Overall, the Achaemenid Empire probably had relatively self-contained economic complexes in the form of the individual parts of the empire, but there was no uniform socio-economic basis in the empire as a whole. Economically highly developed areas, such as the Near East, stood in contrast to areas in which primitive social conditions had been preserved, e.g. in parts of Iran and among the mountain tribes of Asia Minor.

In the eastern regions, eastern Iran, India and China, the social conditions mentioned above, including property relations, only developed later, from around the middle to the end of the 1st millennium B.C. Invasions by tribes and peoples living in primitive society repeatedly revived older forms of ownership and slowed down the development of private property.

In summary, the following can be said about both forms of private property in the Orient: With the disintegration of communal property as the predominant form of ownership, individual and exploitation-based private property emerged in their earliest forms. The boundaries between the two forms were fluid, individual property could become exploitative property, the latter could break down again into individual private property, but ultimately the spread of private property based on exploitation always meant the ruin of small individual private property. This ruin probably only took its most extensive form in the Achaemenid Empire.

Oriental private property in land, which was based on exploitation, became a rival to individual private property. The former tended towards concentration, caused by the way in which it was produced. It worked with external labour, was usually specialized, produced at least partly for the market and was more likely to be in a position to use new means of production or production methods. On the other hand, small individual private property in particular was ruined by usury capital [MEW 25: 607 ff.], and it proved to be very susceptible to natural events and social processes [MEW 25: 613] (floods, drought, soil salinization, state overtaxation, wars, epidemics). Oriental private property, which was based on exploitation, had its peculiarities. Large parts of the land were owned by the king and members of the royal family, the civil servants dependent on the king and the temples. In comparison, the large amount of land owned by private producers, especially the urban upper class, remained within modest limits, even in the Achaemenid Empire. This ancient oriental private property was the forerunner of ancient private property based on exploitation. [335]

Literature:

- 1 *Brentjes, B.*: From Shanidar to Akkad. Leipzig/Jena/Berlin 1968; 2: EAZ 1968 (9), p. 245 ff.; 3: Beitr. Entstehung des Staates, p. 27 ff.; 4. *Chazanov, A. M.*; in: VDI 1975 (134) H. 4, p. 3 ff.; 5. *Dandamayev, M. A.*; in: AoF 1974 (1), p. 123 ff.; 6. *Diakonoff, I. M.*; in: Beitr. soz. Struktur, p. 15 ff.; 7. *Ders. [D'jakonov]*; in: VDI 1967 (102) H. 4, p. 15 ff.; 8. *Ders.*: VDI 1968 (105) H. 3, p. 3 ff.; 9. *Ders.*; in: VDI 1968 (106) H. 4, p. 3 ff.; 10. *Ders.*; in: Problemy dokapitalističeskich obščestv v stranach vostoka. Moscow 1971, p. 127 ff.; 11. *Jähne, A./Njammasch, M.*; in: EAZ 1978 (19), p. 461 ff.; 12. *Jakobson, V. A.*; in: Beitr. soz. Struktur, p. 33 ff.; 13. *Klengel, H.*; in: Beitr. Entstehung des Staates, p. 36 ff.; 14. *Müller, M.*; in: Beitr. soz. Struktur, p. 53 ff.; 15. *Tökei, F.*: Zur Frage der asiatischen Produktionsweise. Neuwied/Berlin 1969; 16. *Weinberg, J. P.*; in: Klio 1976 (58), p. 3 ff.; 17. *Zablocka, J.*; in: AoF 1974 (1), p. 91 ff.; 18. *Die altorientalischen Reiche*. Vol. 1, Frankfurt/M./Hamburg 1965; 19. *Kulturgeschichte des Alten Orient*. Stuttgart 1961; 20. *Weltgeschichte bis zur Herausbildung des Feudalismus*. Berlin 1977.

Marlene Njammasch

2.2.4. Money, monetary system

Prehistoric money includes all those forms that were used as a means of payment before the introduction of the coin. The later transition to the coin represents a turning point which in its significance is equivalent to the introduction of writing [4: 205] - whereby it is noteworthy that this development lags behind that by thousands of years.

Before any kind of means of payment is used, however, there is barter. This became necessary after the social division of labour between agriculture and animal husbandry, as not everyone produced all the goods or products needed to satisfy their most basic needs themselves. It became necessary to exchange one's own products for those of others. As a result of this constant exchange, a barter trade developed, which was soon no longer only carried out in the place in question, but was also used to bring in products from further afield, namely those that were not available here due to a lack of suitable raw materials in the place itself or due to ignorance of the production methods [4: 206].

Markets eventually developed at easily accessible locations, such as harbors, waterways or mountain passes, where everyone could offer their products and find what they needed. This led to the development of special tariffs for the products important in barter trade and certain customs for the trade itself. As this system often made it difficult to find a "buyer" for the goods on offer who could also supply the product desired by the "seller", a viable and, above all, marketable commodity - i.e. one that was in demand at all times and by everyone - emerged. This commodity, which thus assumed the role of a mediator between supply and demand, initially served as a means of payment and was in future regarded as a measure of value for converting the value of all goods. However, it thus became money, although this German word originally meant "recompense, remuneration, value" and not "coined means of payment". At its first stage, therefore, money was a "money of use or money in kind", and since there was no [336] real difference between goods and money, it is not easy to recognize the monetary nature of the products or goods used for this purpose - after all, it was only their use, their custom, that turned them into money [4: 206]. The most diverse products were used as money, above all livestock, jewelry or valuable equipment. However, this list is by no means a chronological sequence, as the selection was made according to the respective living conditions, whereby several types were often used at the same time.

For thousands of years, livestock money was the most important form of money used for food, which of course also served as a measure of value. Livestock farming provided a means of payment in the form of livestock, especially cattle and sheep, which was easy to count and equally useful to everyone, whether alive or slaughtered. It was not displaced from this almost ingrained role later on, even if grain was of no small importance after the development of a system of weights and measures, for example in Egypt.

The longevity of the custom of using cattle as a means of payment and how the transition to other, more advanced means of payment was apparently very slow becomes clear in Homer. Here we find a transitional state in which cattle were still used as a means of payment, but paid for with metal utensils (basins, tripods, etc.) or quite commonly with "treasures" - for example, the equivalent of four to twenty cattle was paid for female slaves [4: 208]. It has not yet been possible to prove that some clay tablets from Knossos written in the Cretan-Mycenaean linear script B, which record large quantities of various types of livestock, are evidence of the use of cattle money. Special standards, i.e. conversion rates, probably developed for the valuation of individual livestock species, as later sources from Athens and Delos show, e.g. for cattle and sheep.

When humans learned to extract and process metal from the 4th millennium BC onwards, it proved to be far superior to all other materials of exchange for use as a measure of value and means of payment. In contrast to food money, it was unlimited

durable or, as with cattle money, did not require any maintenance or accommodation costs and, especially after the transition from tool money to raw metal, was largely divisible; after all, a living piece of cattle cannot be divided any further. Added to this was the smaller volume and the fact that it could be used for all purposes, whereby it was initially unimportant which metal took the leading role. The more trade relations developed and the greater the distances that had to be bridged, the more important all this became. On the other hand, these properties of the new means of payment probably contributed to the further expansion of such far-reaching trade links. Due to its external form, pre-coinage metal money can be divided into two stages of development: jewelry or utensil money and raw metal weighed in shapeless pieces or ingots. For the first stage, however, the development of a system of weights and measures must be assumed very early on. Such systems also existed in the second stream since the 3rd millennium BC, in Egypt since the Old Kingdom (middle of the 3rd millennium BC) and in Crete only since the beginning of the 2nd millennium BC.

This subheading includes ring money as a form of jewelry money, which is documented in Egypt in precious and base metals from the Old Kingdom to the middle of the New Kingdom (around the end of the 14th century BCE). The weighing of such rings, with a weight of 12-16 g, is also depicted pictorially. There is no certain evidence of ring money in the Near East and Greece, although an analogous use of the gold rings of Mycenae is still questionable [2: 337, 354]. Ring money (*nishka*) was very common in ancient India.

[337] In the case of implement money, which only included important implements such as hatchets, knives, sickles and hoes, axe money had far-reaching significance. (It is highly uncertain whether stone axes were already used as a means of payment). Originally, like other tools, it was certainly counted by the piece [4: 216], but after the introduction of a weight system it was weighed, if only because of the different sizes of such objects. A typical axe form, especially for the Cretan-Mycenaean period (ca. 2nd millennium BCE), is the double axe, which was widespread from Asia Minor to Sardinia, but obviously not in Egypt. Evidence from Homer's epics, where Achilles offered ten double axes and single-edged hatchets as first and *second* prizes for the archers' battles and Odysseus shot with twelve double axes, shows how long the monetary function of axe money lasted. These high numbers rule out their use as utensils [4: 220].

The final stage in the development of pre-coinage money was the use of pre-coined metal as a means of payment or measure of value, whereby it was either traded as a shapeless lump, as a round or block ingot (as in the Near Eastern and Egyptian economic areas) or (as in the Mediterranean seafaring area during the Cretan-Mycenaean period) in a more complicated form. There are contradictory views on the origin of the latter form, generally referred to as a "keftiu ingot": on the one hand it is regarded as a "cuirass form" of a double axe [4: 223] [5: 59], on the other as a stylized oxhide. Neither is valid [1: 92]; rather, the pillow shape with its concave sides - as also depicted on some Linear B tablets from Knossos - was probably determined by practical considerations, namely ease of transportation and the possibility of attachment to the carrying saddle of pack animals [3: 24]. The weight of such copper ingots is quite inconsistent; according to previous finds, it appears to have been e.g.

Some of the keftiu ingots are concentrated around 20 kg or 29 kg, but there are also copper disks weighing 4 kg, which were apparently used to balance the weight. There is also disagreement as to whether these keftiu ingots also had a monetary function. In addition to the opinion that it was the full destiny of such metal ingots to be melted down and processed into objects of daily use, there are other formulations according to which further processing was the sole function of these ingots [6: 72]. This denies the dual function of this weighed metal as a raw material and a means of payment. However, hoard finds such as those from the Cretan palace of Hagia Triada alone should speak against this, as they indicate a possible use as a means of payment for the palace.

Weighing raw metal meant overcoming the previous idea that the value of metal was only recognized in its form of use, such as utensils or jewelry. But also

Here, not only is the dual character as a means of payment and a measure of value for the barter trade that naturally continued to exist within commercial transactions preserved, but it is also possible to use this "money" at any time to produce metal objects. If the production of pre-coinage money can therefore be seen as a gradual development, in which older stages remained in use, but one that had already been reached was no longer abandoned, this is obviously not the case in Greece. Although Homer only uses cattle as a measure of value, implement money seems to have been the common "currency", while the ingot had already reached its highest form around 500 years earlier in Mycenaean times. This break seems to have been caused by the migratory movements at the end of the 2nd millennium BCE, which destroyed the Mycenaean culture; the incoming Indo-European tribes were presumably still at a lower pre-monetary stage of development. The development possibilities of the pre-coinage money were exhausted with the weighable raw metal, in whatever form, and the development of a system of weights and measures that met all the requirements of the time - the creation of the coin was the next logical step.

Literature:

1 *Buchholz, H.-G.*: in: *Minoica*. Berlin 1958, p. 92 ff.; 2. *Evans, A. J.*: in: *Corolla Numismatica*. London 1906, p. 336 ff.; 3. *Forbes, R. J.*: in: *Archaeologia Homerica*. Vol. 2, Göttingen 1967, p. 23 ff.; 4. *Regung, K.*: in: *Reallexikon der Vorgeschichte*. Bd. 4.1, Berlin 1926, p. 204 ff.; 5. *Schachermeyr, F.*: *Ägäis und Orient*. Vienna 1967; 6. *Bass, G. F.*: in: *Transactions of the American Philosophical Society* 1967 (57).

Heinz Geiß

2.2.5. Trade and transportation

Trade is so prevalent in the present as a form of "intra-societal" distribution that societies with a different function of trade are difficult to understand, especially as the sources give us only an uncertain and incomplete picture of the beginnings of trade. Archaeological sources, such as products found far from their area of origin, provide clues about the extent and forms of trade. On the other hand, developed social differentiation is not yet evidence of trade, as Mesopotamian society in the 3rd millennium BCE seems to have managed without intra-societal trade. Only the dissolution of the collective organizations of the Sumerian city-states with product distribution and self-sufficient economies allowed trade to become the main form of intra-societal distribution. Up to this time, trade was primarily "foreign trade" within society as a whole in order to procure the necessary raw materials and luxury goods. Small-scale trade is hardly comprehensible archaeologically, except through the scales that emerged in the 2nd millennium BCE and some merchant deposits, such as the Median silver hoard find from Nush-i Jan [1: 97 ff]. They mostly contain "hack silver" as a means of payment.

The oldest traded commodity that can be traced in the Near East was the obsidian of Anatolia and Armenia [26] ' which reached south-western Iran, Syria, Palestine and Transjordan as early as the 7th century. As up to 1 t of obsidian was found at individual excavation sites, there must have already been a considerable export, although the exchange goods are unknown. It could possibly have been salt and sulphur, whereby the former, as a supplement urgently needed for human nutrition, may have become a commodity as settlement became established. Wandering groups of hunters were self-sufficient on their migrations, while settlement cut off the majority of farmers from the resources, forcing them to acquire them through barter.

The settlement of the river valleys in the 6th and 5th millennia BCE separated the inhabitants of the plains from the raw materials of the mountainous regions (wood, copper and even stone), so that the procurement of materials became increasingly important. Expansions into the mountain regions to procure the urgently needed materials were only temporarily successful. Both the repeated fragmentation of Mesopotamia and Syria into several states as well as the real power of the mountain peoples had an effect.

here. Thus, trade between communities remained in [339] the first place, which quickly turned into robbery or plundering when groups of unequal power clashed. Those states that could rely on irrigated agriculture in their centers, but at the same time controlled raw material deposits in the mountains and the pass roads over the mountains, such as the Elamites of the Susiana, had an advantageous position. They repeatedly used their position between Mesopotamia and Iran to build up an empire with extensive trading bases to the east and at the same time had to constantly defend themselves against attacks from the states dominating southern Mesopotamia, which attempted to break the trade barrier.

Trading bases of Elam were found hundreds of kilometers east of the Elamite core areas, for example in Sialk [10] and in Tepe Yahya [14]. In Tepe Yahya it has been proven that the Elamites occupied and settled this place, as there was soapstone nearby, which was popular with them and which they extracted, worked on the spot and then transported away. In this case, it is hard to speak of trade. On the other hand, the Elamites moving north and east from Sialk encountered stable farming communities, e.g. in southern Turkmenistan [19], so that they were only able to acquire the raw material they were looking for, lapis lazuli (or glaze stone), which was only found in the Pamirs and at Baikal, by barter. Lapis lazuli occurs in the Near East and Egypt in most excavation sites in the 4th and 3rd millennia, which is why this trade must have been quite lively. In return, the inhabitants of the lowlands gave grain and textiles, the products of their irrigated agriculture and temple workshops. As individuals could not make such journeys, this trade was necessarily in the hands of the ruling representatives of the early states. An epic poem "Enmerkar and the Lord of Aratta" recorded in the early 2nd millennium BC

[13] describes the barter between the Lord of Uruk and the city of Aratta, which is located in what is now western Iran. Its content probably dates back to the early 3rd millennium BCE and its description also applies to the communities in the 4th millennium that were not yet organized as a state. Uruk then supplied grain and received semi-precious stones (mainly carnelians in addition to lapis lazuli) from India in return. The exchange was organized by the "damgar" (Sumerian; merchant), a member of the administration who received a piece of land and rations, but did not share in the trading profits, as these did not exist in terms of value. The aim of the exchange was the commodities, not the profit from their resale, for which the internal market was still lacking. The members of the temple households received rations according to the hardness of their work, not wages. Labor was not yet a commodity. Grain was an ideal measure of value thanks to its extensive equivalence and arbitrary divisibility up to the almost complete worthlessness of a single grain, so that it remained the main form of "money" in the Near East in the 3rd millennium.

However, the agglomeration of large population groups of 50,000 to 70,000 people in the Sumerian cities, the progressive specialization of crafts and social differentiation dissolved this economy without an internal market, which meant that by the middle of the 3rd millennium, more and more merchandise owners in the cities were trading with each other and, in addition to transportable goods, real estate such as houses and gardens and even the land became a purchasable commodity. In addition to grain, silver was increasingly used as an equivalent until it became the main means of circulation during the III Dynasty of Ur.

Until the early 2nd millennium BCE, foreign trade remained a matter for the rulers, the priestly princes and kings. The frequently used term "state" trade is misleading, as the results of trade did not benefit the community as a whole, [340] but became the private property of the kings and temple lords. This becomes clear, for example, from the early dynastic archives of Lagash [17: 78 f.], where both the city prince Lugaland and - independently of him - his wife Baragnamtara, who herself owned large estates, engaged in foreign trade. They imported copper, tin, cedars, cypresses, live cattle and other goods and used a special official, a "damgargal" (Sumerian; great merchant), who sent out "damgar". The political conditions favored maritime trade, which made it possible to bypass the multitude of states - and the Sumerians' main sources of raw materials were located in the Persian Gulf or could be reached by sea. The main trading center was Bahrain, known as "Tilmun".

The Indus culture was also a staging post that mediated and controlled trade between Mesopotamia, eastern Arabia, southern Iran and India. Ships from the area of the Indus culture brought gold, silver and lapis lazuli [8]. The transition to large or territorial states probably accelerated the development of trade. The creation of a uniformly administered empire from the "lower sea" (Persian Gulf) to the "upper sea" (Mediterranean) was aimed not least at securing the supply of raw materials, and many wars of the Akkadian kings served to conquer the "ore" and "timber lands" and secure the trade routes, for whose protection the fortress of Tell Brak in northern Syria was built [18].

A later recorded account even states that Sargon of Akkad undertook a campaign to Asia Minor in response to a call for help from Mesopotamian merchants who were being threatened by the local kings. It is disputed whether Mesopotamian trading colonies already existed in the highlands at this time, although evidence of Elamian bases in Iran from the early 3rd millennium supports the reality of the claim. However, we know nothing about the legal status of these bases. What is certain is that maritime trade to Tilmun and India continued along the old lines, except that the foreign merchants no longer called at the southern Mesopotamian ports, but had to unload their cargo in the new capital of Akkad. Unfortunately, the latter has not yet been rediscovered, but the excavation of a seaport of the Indus culture in Lothal [23] gives an impression of the organization of trade at that time.

Large storage buildings in the two major cities of the Indus culture, Mohenjo Daro and Harappa [20], indicate a centralization of long-distance trade, while the structure of the settlements suggests small-scale trade in the city on a private level. We know more about foreign trade from the period of the III Dynasty of Ur, in which building inscriptions often indicate the origin of the materials used [17: 79], such as wood from Tilmun and diorite from Magan in eastern Arabia. Other sources now identify Ur as the main port. Leather goods, textiles and sesame oil were exported from here, while copper was primarily imported. Until the time of the III Dynasty of Ur, foreign trade remained under the control of a state official. The "damgar" mentioned in the sources all appear to have been dependent on temples or state offices, but also traded freely inland with goods, some of which they sold on behalf of the temples and the palace.

After the collapse of the empire of the Third Dynasty of Ur, the privatization of trade became increasingly prevalent. The role of the palace and the temples declined. Maritime trade to the south no longer reached Magan. The Mesopotamians only sailed as far as Tilmun. They fetched copper, semi-precious stones and ivory, for which they initially traded textiles, but since the reign of Rimsin of Larsa they traded silver. The Tilmun people came as far as Ur and Isin, but then the sea trade to India apparently collapsed as the Indus culture declined.

[341] Both state and private trade existed in the city of Larsa. The "wakil tamkari" (Akkadian; roughly: overseer of the tamkars) received the surpluses from the tax administration, which he had the tamkars sell on the market for silver. In this way, the state obtained the precious metal it now needed for foreign trade. These surpluses consisted of fish, dates, wool, vegetables etc. in such considerable quantities that the state sometimes assigned the entire tax revenue to a private entrepreneur in return for an advance payment in silver, who then collected the tax and sold the services in kind on the market.

Archives from Ur show that the sailors worked at their own risk, although often with borrowed capital. They had to pay high taxes to the palace and the temple of Ningal. But there were also commissioned voyages for the temple [21: 16 f.] They traded in gold, ivory, pearls (?) and semi-precious stones.

The progressive privatization of trade, its detachment from the control of the palace and the temples, led to the development of "karum" trade, trade on the quay and at the city gate, which created a trading place next to, indeed outside the city proper, which was both a form of organization and a place of residence for the traders and a place of jurisdiction.

We are best informed about an Assyrian "Karum" in Kültepe-Kaneš in the eastern Anatolian highlands [15]. Even the "mother city" of Assur owed its prosperity, and presumably its founding, to long-distance trade. Although it was not located in an area suitable for agriculture, it was at the crossroads of the caravan routes running from Syria to Iran and the waterway to Sumer and Akkad. The caravans traveled along the mountains as they found enough fodder for their animals - mainly donkeys, rarely cattle in front of two-wheeled carts. At the beginning of the 2nd millennium BCE (possibly already in Akkadian times), the Assyrians used their geographical position between the state centers in the river valley and the small states and tribes of the highlands to establish an extensive trade network. In Kültepe-Kaneš, on the edge of the local royal city, there was an Assyrian "Karum", which was the center of Assyrian long-distance trade for almost a century (19th-18th century BCE). A number of other trading posts in Anatolia were subordinate to it, so that both those coming from Assur, 1,000 km away, and those leaving there were processed in Kaneš. Mesopotamian textiles and tin, probably from Iran, were exported to Anatolia, with the prince of Kaneš being responsible for a tenth of the imports. Silver and gold went back to Assur, while copper was also traded regionally in Anatolia. The "Karum" was subordinate to the "city" of Assur, apparently the city assembly, and at the same time represented the merchants vis-à-vis the Kaneš princes. The merchants were private individuals who traded on their own account or with borrowed capital from Assur. They had to pay taxes to the "Karum" and the palace and developed a complicated system of partnership agreements, bank transfers, cheques, various loan systems and credits. Deliveries to Assur were always made to private individuals, not to state institutions. Customs duties had to be paid in all states to be passed through and smuggling was widespread.

The "karum" is also known from other cities, such as Man and Eshnunna. The news about the "karum" in Man only comes from the palace archives and therefore mainly reports on state control over the merchants. For example, the merchants from Sippar had their own "Karum" in Man, which was controlled by the "wakil tamkari". The merchant courts in Man traded in wine from northern Syria, grain from the north, tin from Iran and asphalt from Iraq. According to the Man archive [342], the Mesopotamian traders came as far as Mari. There, Syrians took over the trade as far as Ugarit and Byblos, where the Egyptians took over the goods.

Eshnunna controlled the Tigris trade and, in part, the route to the ore deposits in Iran. The trade profits made by the southern Mesopotamian states, Man and Eshnunna, were an important incentive for the expansion of the Old Babylonian Empire, in the course of which Man and Eshnunna were destroyed. Trade to the Persian Gulf broke off and the Tilmun trade ceased.

The "tamkar" lost his administrative functions, which were now performed by the "wakil tamkari", who continued to engage in extensive trade. But the "tamkars" now organized an extensive trade in products, houses and slaves, some of whom they trained as craftsmen and allowed to work with a share of the profits. The retail trade was at least partly carried out by the taverns. As a rule, the trading profits seem to have been invested in land.

Entire dynasties of "Tamkars" are known from the time of the Larsa state and under the Babylonian kings, with 60 merchants from Larsa alone documented in the texts. They lived in their own quarters, owned villages and traded in all kinds of goods. As a rule, the kings endeavoured to monopolize foreign trade, and from the times of powerful kings there are usually few sources about rich merchants, but there are materials about an increase in state trade [16].

The collapse of the Babylonian empire led to the decline of trade, which could not flourish without political security. The following period, the Middle Babylonian period, in which the Kassites ruled Mesopotamia, the Mitanni Syria and the Egyptians Palestine, is mainly recorded in the texts of the Amarna Archives [12].

Egypt's exchange with other states was mainly based on the export of gold, in return for which the country received horses, iron, lapis lazuli and other items. In addition to gold, the Egyptians sold

Zoo animals, ivory and ebony. The export of gold to Mesopotamia meant that this metal replaced silver as the equivalent value [7]. Egypt's foreign trade, especially the famous Punt and Southland expeditions, was in the hands of the state. Little is known about domestic trade in Egypt or in late Mesopotamia (Assyrians and Neo-Babylonians). Only the private slave trade is more prominent. This may be due not least to the sources, which rarely mention "tamkars" in Assyria and Babylonia. Apart from the temple archive of Uruk from the time of Nabonid, which is z.

B. reports on the import of iron, copper, alum and purple, no archives from this period are known to date.

The policies of the kings of Assyria and Babylonia often indicate their interest in trade. Their military campaigns to the Syrian coast and their efforts to occupy southern Palestine were supported by trade interests, as the famous "Incense Road", a caravan route through the Hejaz used from southern Arabia to the Mediterranean since the 10th century BCE at the latest, which apparently also connected the Mediterranean region to the sea routes to India and East Africa, ended in Gaza.

Trade policy was dominant in the time of the last Babylonian king Nabonid. When the Persians gained control of the mountainous regions, they cut off the Babylonians' trade routes in the countryside and probably also in the Persian Gulf. Nabonid then attempted to break through the Persian blockade by advancing along the 'Incense Route'. However, it ultimately failed because major cities such as Babylon submitted to the Persians and delivered the king. The long-distance trade interests of the major temples and probably also private companies may have played a role in this.

[343] In the border zones between the major states and on the routes to the peripheral regions that were still left behind, states and cities specialized in exchange developed, in which the export trade also flourished. From the period between 1500 and 1200 BCE, the Syrian coastal state of Ugarit with its port of Machadu is primarily known as such a trading center. Caravan routes to the east and north-east and sea routes to Asia Minor, Cyprus, Palestine and Egypt ran from here. Its own exports consisted mainly of purple materials.

The merchants living in a quarter owned large and small ships and had to acquire a trading concession from the king in exchange for gold payments. They were not only locals, but also Asia Minor and Palestinians. Kings and queens of Ugarit had "Tam- kars", some of whom occupied very high ranks at court, work on their account [22: 313, 321]. In Ugarit and also in Aleppo, merchants acquired land, sometimes with entire villages, from their trading profits.

The Phoenicians were even more specialized in trade. Starting from the Syrian coast, they covered Cyprus, the North African coast as far as the Atlantic, southern Spain and the islands of the western Mediterranean with trading posts and colonies. After the Assyrians subjugated the initial area, some trading bases became independent. New areas of influence (Spain) were gained under the leadership of Carthage. Wholesalers formed an influential layer of the ruling class, some of whom asserted themselves against the kings and enforced republican structures.

Archives of private trading companies are known from the period of Persian rule over Babylonia, which also allow conclusions to be drawn about the conditions under the kings of the Assyrian and Neo-Babylonian dynasties. A trading and banking house, Murashu and Sons, was active in Babylonia in the 5th century BCE, handling every conceivable transaction. It bought and sold, rented and leased fields, gardens and houses as well as slaves. Murashu's agents traded in grain, oil, weapons, tax obligations and similar things. They leased land to their own slaves, had slaves trained as craftsmen and exploited them [6]. Not only the Murashu archive, but also thousands of sales contracts of all kinds prove that in Mesopotamia the commodity economy had established itself to the extent that this was possible on the basis of a predominant agricultural production.

Trade as foreign and domestic trade led to the development of different means of transportation and techniques for land and sea transport. On land, relatively few resources were required (carriers, pack animals, wagons). The ancient standard, a mosaic from the royal tombs of Ur [3], shows the porter carrying the load with a headband, as can still be seen in modern times.

The first pack animal to be used was the ox, which was used as a riding and pack animal [4]. From the late 4th and early 3rd centuries, it was used as a draught animal before the cart and the bow. The donkey, which was probably introduced as a domestic animal in the 5th millennium, replaced the cattle in the 3rd millennium in the Near East as a pack animal and to some extent as a mount. It was mainly used as a pack animal on large Egyptian estates. The onager seems to have been used almost exclusively as a draught animal for chariots in the 3rd millennium.

The beginning of horse husbandry in the Near East is disputed [5]. What is certain is that in the 2nd millennium BC they were still primarily used as draught animals for chariots. The appearance of four-wheeled horse-drawn chariots as part of the Hittite cavalcade at the Battle of Qadesh [25: Fig. 92 a] is one of the first signs of the emergence of horse-drawn chariots as a means of trade and transportation. At the end of the 2nd millennium BCE, the dromedary and Bactrian camel became increasingly popular as beasts of burden and mounts in long-distance trade [2].

[344] Sea and river navigation demanded great effort, and as early as the 3rd millennium voyages from the Indus region to Mesopotamia were no exception. Even before 3000 BCE, Arabia was circumnavigated and the Red Sea was navigated from Egypt. Some of the river boats were built from local materials, such as papyrus in Egypt and leather with a wooden frame in northern Mesopotamia. In addition, rafts with an "air cushion" made of inflated animal bellows were used for heavy loads. The rapid currents and the many whirlpools of the Tigris were countered by building round boats made of leather.

Wood was needed for efficient river and sea vessels, so that the mountain forests of Lebanon and the Taurus were strategic sources of raw materials for the Egyptians and Mesopotamians, and many a war was fought over their possession. The sea vessels were partly rowed and partly sailed. River ships were also equipped with sails or were rowed and pulled upstream by people. This required the construction of riverside paths. People also sailed upstream on the Nile, as the prevailing wind was from the northwest. Downstream it was possible to drift along. Regular high tides contributed to the construction of fixed quays; seaports, such as those excavated in Lothal and Ur, had walled harbour basins and were capable of accommodating up to 30 seagoing vessels with a carrying capacity of 50 tons. The harbor basin at Lothal, which was built between 2400 and 1800 was 214 m long and 36 m wide. Only the Phoenicians had similarly well-developed harbors, such as the "Cothon" of Motya, a walled harbor with long quays. The basin measures 51 m by 37 m, the channel leading to it is 7 m wide and 30 m long [11: 178 ff]. The facilities in Carthage were considerably larger. The "roll" as a means of lifting loads is not documented before the 8th century BC. The oldest evidence of the astrolabe, a device for determining the apparent altitude of the stars, which was still used as the main instrument of medieval navigation, is equally old. Pierced stone slabs served as ship anchors.

Some shipwrecks found in recent years, such as the Gelidonya ship off the southwest coast of Turkey, provide evidence of maritime trade in general cargo, in this case copper ingots. Large storage facilities near ports are primarily known from the Indus culture of the 3rd millennium, for example from Mohenjo Daro, while storage buildings in the Near East have received less attention to date. As they were mostly found in palaces, as in Kalach, they say little about trade.

In addition to the Nile, Euphrates, Tigris and Indus rivers, the most important trade routes were the sea routes from the Nile delta to Syria, Cyprus and Asia Minor, the sea route from India to the Near East and the

"Persian Gulf". Land routes of greater importance were the caravan routes from Syria to the Euphrates and Assyria, the roads to Anatolia, the route through north-western Iran to Turkmenia and the Pamirs and the "Incense Road", which corresponded to a trade route from Marib to the Persian Gulf. The construction of roads and bridges seems to date back to the 1st millennium BCE.

The construction of roads in the Near East was at its peak during the Persian Empire. The high point of road construction in the Near East was the time of the Persian Empire, which had to expand the trade routes (generally two-lane, except for difficult mountain paths) for the transit trade from India and China and the increased caravan traffic. Most of the roads were still earth roads, with hardly any paving. The "Silk Road", which was only widely used from the Parthian Empire onwards, has not yet been documented for the Persian period.

The greatest westward expansion of oriental trade was among the Phoenicians, who are said to have reached England and whose best-known outpost to date has been found on the Moroccan Atlantic coast near Mogador. The Phoenicians' circumnavigation of Africa on behalf of Pharaoh Necho, mentioned by Herodotus, [345] probably took place, whereas the colonist expedition to the coast of what is now Cameroon under Hanno is perhaps a more ancient case.

Literature:

1 *Bivar, A. D. H.*: in: Iran 1971 (10), p. 97 ff.; 2. *Brentjes, B.*: in: Klio 1960 (38), p. 23 ff.; 3: From Shanidar to Akkad. Leipzig 1968; 4. *Ders.* in: Klio 1972 (54), p. 9 ff.; 1973 (55), p. 43 ff.; 5. *Ders.* in: Säugetierkundliche Mitteilungen 1972 (20), p. 325 ff.; 6. *Cardascia, R.*: Les Archives des Murasu. Paris 1951; 7. *Edzard, D. O.*: in Journal of Economic and Social History of the Orient 1960 (3), p. 38 ff.; 8. *Falkenstein, A.*: in: Zeitschrift für Assyriologie 1964 (22), p. 101 ff.; 9. *Felber, R.*: Die Entwicklung der Austauschverhältnisse im alten China. Berlin 1973; 10. *Ghirsman, R.*: Fouilles de Sialk près de Kashan. Vol. 1, Leiden 1935; Vol. 2, Paris 1939; 11. *Isserlin, B. S. J.*: in: Antiquity 1971 (45); 12. *Knudtzon, J.*: Die el-Amarna-Tafeln. Leipzig 1907 ff.; 13. *Kramer, S. N.*: Enmerkar and the Lord of Aratta. Philadelphia 1952; 14. *Lamberg-Karlovsky, C. C.*: in: Journal of the American Oriental Society 1972 (92) H. 2, p. 222 ff.; 15. *Larsen, T. L.*: Old Assyrian Caravan Procedures. Istanbul 1967; 16. *Leemans, W. F.*: The Old Babylonian Merchant, his Business and his social Position. Leiden 1950; 17th ed. in: Reallexikon der Assyriologie und Vorderasiatischen Archäologie. Vol. 4, Berlin 1972, p. 76 ff.; 18. *Mallowan, M. E. L.*: in: Iraq 1947 (9), p. 1 ff.; 19. *Masson, V. M.*: Srednjaja Azija, drevnij Vostok. Moscow/Leningrad 1964; 20. *Mode, H.*: Das frühe Indien. Stuttgart 1959; 21. *Oppenheim, A. L.*: in: Journal of the American Oriental Society 1954 (74); 22. *Rainey, A. F.*: in: Israel Exploration Journal 1963 (13) H. 4; 23. *Rao, S. R.*: Lothal and the Indus Civilization. Bombay/New York 1973; 24. *Ritschl, E.*: Untersuchungen zur sozialen und ökonomischen Struktur im Handwerk und Handel im alten Indien anhand des Kautilya Arthashastra. Berlin 1968 (Diss.); 25. *Wreszinski, W.*: Atlas zur altägyptischen Kulturgeschichte. Vol. 2, Leipzig 1936; 26. *Wright, G. A.*: Obsidian Analysis and Prehistoric Near Eastern Trade: 7500 to 3500 BC. Ann Arbor 1969.

Burchard Brentjes

2.2.6. Craft

In the process of the social division of labor, craftsmanship detached itself from hunting, animal husbandry and agriculture and became the main activity of various social classes. Belonging to the craftsmen did not mean the same legal status in the ancient oriental cultures, where slaves, semi-free or free people could work side by side in the same branch of trade. The transitions from non-agricultural production in the domestic economy to handicraft production are also fluid, e.g. in the large-scale organizations of the temple and palace economies, which were not based on the production of goods or wage labour until the end of the 3rd millennium BC.

Archaeologically, the emergence of crafts as a separate production group can only be observed in exceptional cases, e.g. when, as in Haçilar, the living and working spaces of specialized potters are located next to the dwellings of farmers [12: Fig. 22]. The product itself only says something about the specialization of the producer in a certain quality, which could also take place in a domestic economy. With [346] the development of the potter's craft, a different, higher quality of product emerged, which testifies to the separation of its producer from the mass of the people - and at the same time suggests an appreciation of this craft in society, for example in Arpachiyah (northern Iraq), where a stoneworker's workshop was located in a palace (5th millennium B C E). On the

other hand, the workplaces of the stone workers, located in cellars behind massive walls

The makers of grinders and stone tools tend to speak of a suppression of the producer. Observations in Mersin also suggest forced labor in non-agricultural production, primarily in pottery.

The archaeological material from the 4th millennium from southern Iraq and Khuzistan points to a rapid development of craftsmanship, a finding that is confirmed by the written signs and pictorial documents that emerged around 3000. They depict various simple machines for the first time, which served both as tools and as products of the craft (primarily plow, bow, cart, wheel, potter's wheel, two types of looms and other tools).

Among the archaeologically ascertainable crafts, pottery is in first place, where the introduction of the potter's wheel and the production of uniform types indicate the concentration of production in the centers and an increase in productivity. This became clear during the investigations in the Susiana, where it can be proven for the Middle Uruk period that pottery production with a potter's wheel was only carried out in the urban centers. At the same time, the so-called "ration bowl", a typical measuring vessel for the supply of semi-free workers in the temple economies, an archaeological sign of the development of a class society [13: 137]. The principle of rotation, which was applied to the wagon and potter's wheel, also formed the basic idea of the woodworking drill moved by a bow and the stone drill hung with two swinging stones. The broad axe and fox tail were almost universal tools used by carpenters. The domed furnace was used in ceramics production and in the metalworking trade; the one-sided casting mold of the copper caster had its equivalent in the potter's mold bowl. The transition to the state period was marked by the invention of the bronze alloy for cutting and engraving tools.

In the Sumerian city-states, craftsmen from various branches belonged to the cult communities. Remarkable differences in their legal status can be observed. Free craftsmen were obviously bakers, brewers and blacksmiths. Slaves, on the other hand, were auxiliary personnel and practitioners of easily controlled professions that could be carried out in groups, such as wool scraper, spinner and weaver [18].

Alongside grain, textiles produced with cheap slave labour were the main export goods of Mesopotamia, which had to import almost all the raw materials it needed. At the end of the 3rd millennium, Ur is said to have counted 9,000 textile worker slaves for every 50,000-70,000 inhabitants [10: No. 1018].

But specialized craftsmen also worked in the temples. During the III Dynasty, temples bought raw materials from Ur for goldsmiths, seal cutters and leather workers, who therefore worked in the temple workshops. This apparently led to the specialization of entire settlements. Sippar was considered the city of bronze and Eridu the city of coppersmiths. With the collapse of the Third Dynasty of Ur, the system of ration payments, i.e. the supply of workers in the temple workshops according to the severity of their work, disappeared [8].

With the dissolution of the ancient Sumerian enclosure of producers in temple and palace economies, wages and the personal and economic independence of craftsmen of all branches became established. The integration of the individual cities into [347] large empires, the repeated displacement of the population through migration, trade and transportation dissolved the cult communities. If craftsmen now worked in temples or palaces, they were either slaves or wage laborers. Only under the Kassites (1500-1100) was there a temporary relapse into early state structures. The ration system was sometimes applied again. As a rule, however, from the late Sumerian period (after 1900 BCE), craftsmen were personally free and private owners or even slaves. Ancient Babylonian contracts name blacksmiths, potters and weavers as slave buyers or sellers and silver lenders, who also sold shepherds, houses and slaves [2]. Blacksmiths, metalworkers, boatmen, carpenters, tailors, goldsmiths, poultry breeders, brewers, shepherds, oil pressers and gardeners appear on these contracts as legally competent witnesses. For the work of day laborers (tailors, blacksmiths, shoemakers, cane workers, carpenters and stone cutters), minimum wages were fixed by law (Codex Hammurapi § 274).

A few sources speak of collective action by such wage laborers. For example In Babylonian times, for example, stone workers were deprived of their wages [19: 129]. Apprenticeship contracts of the 2nd and 1st millennium regulate the training of slaves as craftsmen for a fixed period in return for payment, whereby the trainer was sometimes a slave himself. The trained slave was rented out in return for high interest rates. The contracts name trades such as seal cutter, weaver, baker, leather worker, bleacher, potter and dyer.

In Egypt, too, there were slaves as millers, shoemakers, brewers, weavers and servants alongside free craftsmen [7: 240 f.]. A particular problem was the registration of craftsmen by the state and their organization. In the Old Kingdom of Egypt, for example, craftsmen were organized in "phyles", apparently based on kinship [9: 1 ff]. In the Near East, craftsmen appear to have been settled in quarters by profession and organized in a kind of "professional association" that also served as a military organization. In the Syrian city of Ugarit around 1400 BCE, for example, potters, chariot makers, tailors, cooks, shepherds, singers and traders were organized in such associations [20: 123 f.].

A surviving legal dispute from Nineveh (from the time of Sanherib?) shows an association of craftsmen under a different law. It comprised two groups of 20 sesame oil pressers who belonged to the king's "Mushkenu". They were subject to two overseers who oppressed the craftsmen to such an extent that they appealed to the court. They accused the overseers of embezzling up to half of the production as well as the food supplied to the craftsmen, of making shoemakers work for their private enrichment and of not even shying away from selling the widows and houses of the craftsmen [4: 397 ff].

Other documents show associations in a much more favorable position. In the time of Cyrus, for example, a professional group concluded an agreement with the temple administration of Eanna in Uruk that gave them the exclusive right to practise carpentry, metal engraving and goldsmithing in the temple district. The craftsmen had to swear to report "illegal workers" and not to work elsewhere. Their profit consisted of the right to work in the flourishing economic center, where many potential customers frequented. The association seems to date back to the 2nd millennium BC. It is possible that professional membership was hereditary. Professional associations had communal houses and in the Neo-Assyrian period had a share in the tax exemption of the largest cities such as Nippur, Sippar and Babylon.

In the trading cities of Phoenicia, crafts played a relatively important role, as they supplied the goods for the export trade. There is evidence of slaves as spinners, [348] weavers and dyers; however, many votive stelae also prove that free citizens practiced a trade.

The craftsmen of the river valley areas were always faced with the problem of raw materials, as apart from the clay of the alluvial soil and the poor, fibrous wood of the palm tree, hardly any raw materials were available locally. Only Upper Egypt was favored here. Extensive imports of wood, stone and metal were required, with the latter being preferred as a material for tools, as it could be remelted and reused, unlike stone. The lack of stone in the river valleys forced the use of metal tools, unless wood was required. The naturalized system of determining periods according to the predominant raw materials is one-sided, as it does not take into account that the main tools used in soil construction were made of wood. The use of metal only applies to the area of crafts and war technology, especially for tools for beating, piercing and cutting. However, even in the latter function, flint and obsidian were hardly dispensable competitors for metal until the development of steel tools, as the cutting edges achievable with these stones could not be produced with copper and bronze. Their disadvantage was their brittleness.

For the Stromtal cultures, we distinguish three main stages: 1. the "Copper Age", which lasted until the formation of the state; 2. the "Bronze Age", in which the increasing import of additives for alloys made it possible to produce the metal after which this period was named, and 3. the "Iron Age", which marked the beginning of the Iron Age in the Near Eastern core area around 1200-1000. "Bronze Age" and which should be more accurately described as the "Steel Age".

Iron is known to have been cast in Asia Minor as early as the 6th century during copper extraction. Its processing into jewelry and ceremonial objects, such as inlays, individual blades for ceremonial weapons, as well as scepters and thrones, is known from the late 3rd and early 2nd centuries from Asia Minor, Iraq and Syria. It apparently originated mainly from north-east Asia Minor. However, small quantities of very pure iron were also obtained by smelting gold from Nubian sands.

However, it remained a showpiece metal, and even the invention of steel technology around 1400 BCE in Asia Minor did not allow iron to become widespread. This only happened after the destruction of the states dominating Asia Minor by the "Sea Peoples Storm", a movement of peoples that shook the Near East in the late 13th and 12th centuries, probably due to the dispersion of the old blacksmith population. From the Near East, iron began its triumphal march across the earth, which was to last for centuries. China, Egypt and India only entered the "Iron Age" in the 7th-6th century.

The need to supply raw materials required extensive trade relations even in pre-state times, and even more so in state times. On the one hand, attempts were made to conquer the most important raw material deposits and to secure the routes to them militarily, while on the other hand, the clash of almost equally strong states or the great distances between the states forced forms of peaceful exchange. This led to the development of veritable "export industries" in order to obtain exchange values.

The building trades of the ancient oriental river valley cultures generally worked with the predominant raw material, clay, which was shaped into bricks and dried. Only the Indus culture seems to have had access to sufficient wood resources to be able to fire the bricks with charcoal. Egypt was in a position to use stone for ritual and ceremonial buildings, a building material that was only used exceptionally in Mesopotamia. Cement made from [349] lime and crushed bricks can already be found as a building material in the early 3rd millennium as a substitute for stone in southern Mesopotamia (Uruk stone temple). However, cement was not used on a large scale until the 2nd millennium BC and was used to insulate cisterns. Bitumen was also used on a large scale to stabilize groundwater, for water pipes and similar works.

Mesopotamia was forced by the basic material, consisting of mud bricks and palm trunks, to build flat structures and only rarely used columns, but more often vaulted forms. The large buildings were based on drawn plans and wooden scaffolding was used. They built with the broad, triangular trowel, the basket and the hoe to extract clay. The basic shape of the building was the rectangular room, which was multiplied by additions. In the south, the "courtyard house", which faced the inner courtyard and was closed off from the outside for climatic reasons, predominated, while in the colder north the elongated "hearth house" was used. The basic types of large buildings were also developed from these. The temple of Mesopotamia developed from the terrace of the early temples, which was possibly intended to protect the grain reserves in the temple, which served as a communal storehouse, from floods.

Egypt also built its residential and palace buildings in brick, while the cult buildings and many tombs were made of stone from the III dynasty (from around 2600) onwards. Limestone was used almost exclusively until the end of the 3rd millennium. Granite was then used for arches and piers and basalt for paving. For large arches, the relatively strong but easy to work siltstone was used. Even large buildings have almost no foundations. Their columns and walls usually rested on sand.

Brick firing was a special feature of the Indus culture, but as in Near Eastern cultures, buildings were constructed with load-bearing walls. Chinese architecture, on the other hand, was based on the inner pillar supporting the roof, while the wall functioned as a kind of curtain between the living space and nature. The Chinese building craftsman was therefore primarily a woodworker and his basic building form was the elongated hall.

The relocation of the development of state and cultural centers to the plains of northern Iraq and Syria as well as to the mountainous regions, the emergence of steel tools led to

profound changes. Millions of stone blocks were now available for roads, bridges, aqueducts and palace and fortress buildings and no longer just for representative cult buildings. Sennacherib's aqueduct at Nineveh, for example, which followed Egyptian constructions [5: vol. 7, 31 ff.], consisted of 2 million blocks measuring 50 x 50 x 65 cm, and the "Processional Way" of Babylon was built so sturdily that it could withstand modern heavy-duty transportation. Extensive road constructions and stable bridges were built, for example in Babylon and Nineveh. The Babylon Bridge has seven piers 9 m wide and 21 m long made of bricks, which probably had ashlar protection. Pontoon and ship bridges had been part of the pioneer equipment of armies since the Assyrians [1].

Significant achievements were also made in canal construction as early as the 1st millennium BCE, as evidenced by the connection between the Nile and the Red Sea through the "Darius" Canal.

The processing of the ores required the achievement of high melting temperatures, such as over 1,050 degrees C for various copper ores [5: vol. 9]. However, charcoal without additional oxygen only reached around 900 degrees C. The earliest verifiable device for enriching the fuel mass with oxygen was the blowpipe, which was used to force breathing air into the mass. It was not until the end of the 3rd millennium that bellows were found [6]. Casting pots, melting pans and casting molds have been found in many places. The lack of real tongs limited the possibility of lifting large cast pans. The bronze was apparently too brittle for the tongs. Tongs are not documented until the Late Bronze Age. Tweezers and clamps were easier to produce. This is why large castings were made from several pans that could be moved with clamps. In addition to working with the reusable shell mould, casting in the "lost mould" was practised from the early 3rd millennium BC and casting in the sand mould from 1800 BC. The driving technique, similar to gold leaf hammers, was used to shape large plates, achieving thicknesses of 0.001 mm. The cutting of paper-thin copper plates and the drawing of copper wire were techniques used as early as the 3rd century, as were soft and hard soldering in Mesopotamia. Welding work appears to have been carried out in the 15th century BC on the steel tool from Tutankhamun's tomb. We have the oldest examples of the granulation technique from the royal tombs of Ur. Gold beads were placed on a gold base that had been given a lower melting point by adding copper, so that when the plate melted, the beads were placed on top without any connecting material and remained firmly attached when the plate cooled. Rivets for joining metal plates have been documented since the middle of the 3rd century. The nail is even older. Tens of thousands of nails were made and used in palaces and temples.

The transition to the general use of iron freed metal production from its exclusivity, as iron ores were much more abundant and widespread. The production and processing of even the best steels was in the hands of individual blacksmiths. Hyderabad steel, for example, the material of the famous Damascus and Toledan blades, was smelted in quantities of 800-1,000 g from magnetite with the addition of bamboo and leaves. The state depots of the Assyrians contained hundreds of tons, about 150 tons in Chorsabad alone.

China developed the technique of iron casting from the very beginning. Brass was also produced in the 1st millennium BC. New metalworking tools from the Iron Age include files, tongs and screws [5: vol. 8].

With the transition to the Metal Age, many stoneworking techniques (e.g. the manufacture of stone tools) fell into disuse. On the other hand, the emergence of metal tools opened up new possibilities for other stone and woodworking techniques.

Metal could be used to make long blades for cutting wood and then stone. The first form was the copper foxtail, which was used for woodworking. Through the use of emerald teeth, the foxtail became an excellent stone saw, as known from Tirnys (2nd millennium BCE). Only steel made it possible to construct large stone saws with sand as a cutting medium. However, they were not used until Roman times. The main forms of stone breaking techniques were blasting with wood and water, smashing with fire and sudden cooling and hammering with hard hammerstones.

Stone cutting with sand was also used in woodworking, even though the diamond drill used in glyptics was almost exclusively used for precious stones (since the early 3rd century). On the other hand, the grinding wheel used in glyptics could also be used in woodworking. The drills were basically the same, except that the wood drill was moved by the bow and the stone drill with the help of flywheels.

The axe, hatchet and drawbar were mainly woodworking tools, whereas the Iron Age chisel was a stoneworker's tool. Turning also required the steel chisel [351] [15: 369]. Two parts were joined using nails, screws, rivets, seams, "dovetails" and glue.

In addition to furniture and house buildings, woodworkers mainly produced tools such as plows, carts [16], looms, turning wheels, spades and hoes, ships, threshing machines, bridges and much more.

Vessel production began as woodworking, as the excavation at Çatal Hüyük proves. Stone vessels date back to the early days of agriculture, while clay pottery only became evident with the full development of sedentarization in the 7th century. Observations in Japan have indeed shown that sedentarization was the decisive prerequisite for the development of pottery, because there it appears in the so-called Yomon culture at about the same time as the pottery from the building settlements of the Near East in long-term settled fishing sites. During the transition to Classical society, the potter's wheel and forming bowl gradually took the place of freehand shaping. Kiln firing was developed at the same time as metal melting from open fire firing.

It was not until the 2nd millennium BC that the most important new development in pottery emerged in the Ancient Near East in the form of the foot-driven wheel. The artistic design could be achieved by deformation, incised and cut ornamentation, by painting before and after firing and by sculptural decoration.

The textile trade had its center in Mesopotamia. The wool production of individual temples at the end of the 3rd millennium BCE was 566 tons per season, with 2 kg of wool per animal [21: 30]. The hair of the long-haired goat was also processed. In Egypt, the breeding of wool sheep only began in the 2nd millennium BCE. In the 3rd millennium BC, India contributed cotton, which had also been cultivated in the Near East since the early 1st millennium BC.

The wool was washed and bleached using ash and baking soda. Washermen, bleachers and felt makers lived in closed quarters. Dyeing was done with woad, indigo, nut and acacia as well as with the purple of the purple snail and the carmine of the Kermococcus. Purple dye, the production of which from 12,000 snails yielded only 1.5 g of dye, was produced in such quantities that A 120 m long and 7-8 m high heap of snail shells remained near Sidon. Black was obtained from bitumen and oak galls.

Spinning was a female activity, mainly practiced by female slaves. They worked with a simple spindle, whorl and rod dryer.

China has been producing silk since the 2nd millennium BCE by domesticating the silkworm.

Ropes were made from hemp, papyrus, leather, cotton and other fibers. They were used to make traction ropes and nets. In addition to the weaving technique with boards and three types of loom [5: vol. 4] for making fabrics, the braiding technique was used for mats, traps, baskets, bags and various everyday objects.

Leather was used to make clothing, vessels and weapons. It became less important with the development of the agricultural economy [5: vol. 5, 22 ff].

Chemical processes formed the basis of several crafts in the ancient Near East. Their findings were mostly limited to synthesis. For example, lapis lazuli was imitated by adding cobalt to glass flux, and marble was also "faked". Glass and color production [14]

in the early 2nd millennium BCE in the Near East partly took on the character of chemical production, in which iron oxide hydrates, lead oxides, arsenic sulphide, manganese and other materials were used [11]. The Egyptians replaced the rare lapis lazuli from Central Asia with artificial stone made of lime, sand, malachite and soda. Like frit, glazes made of tin, lead and salt, and possibly even mercury, were made and glass produced as early as the 2nd millennium BC. Metals and semi-precious stones were artificially colored. Wax and egg white were used as binding agents and fixatives, as well as bone glue (since the middle of the 3rd millennium BC).

Chemical processes were also used in the production of food and cosmetics, such as cheese, wine, beer and schnapps. [5: Vol. 3] Vegetable oils and fats were also processed. Body paints and medicines such as opium and hemp were widely used. Some devices and techniques were ahead of their time, such as the invention of the stamp for the rapid production of characters and images (on the "Discos" of Phaistos, around 1800 BCE), the multiple reproduction of images through the use of rolls with incised image negatives, the invention of the lens [17: 177, 245], etc., which were not yet used in production in the ancient Near Eastern period.

Literature:

1 *Andrea, W.*: Alte Feststraßen in Nahen Osten. Leipzig 1941; 2. *Brentjes, B.*: in: EAZ 1968 (9), p. 45 ff.; 3. *Demuth, L.*: in: Beiträge zur Assyriologie 1898 (3); 4. *Ebeling, E.*: in: Orientalia 1950 (19); 5 *Forbes, R. J.*: Studies in Ancient Technology. Vol. 2 ff., London 1964 ff.; 6. *al-Gailani, L.*: in: Sumer 1965 (21), p. 33 ff.; 7. *Gardiner, A. H./Lawsuit, A.*: in: Journal of Egyptian Archaeology 1941 (27); 8. *Gelb, I. J.*: in: Journal of Near Eastern Studies 1965 (24), p. 230 ff.; 9. *Helck, W.*: in: Die Welt des Orients. Vol. 7.1, Göttingen 1973, p. 1 ff.; 10. *Legrain, L.*: Ur-Excavations Texts. Vol. 3, London/Philadelphia 1947; 11. *Levey, M.*: in: Isis 1958 (49) H. 2, p. 166 ff.; H. 3, p. 336 ff.; 12. *Mellaart, J.*: Excavations at Haçılar. Vol. 2, Edinburgh 1970; 13. *Nissen, H. J.*: in: Bagdader Mitteilungen 1970 (5), p. 102 ff.; 14. *Oppenheim A. L./Brill R. H.*: Glass and Glassmaking in Ancient Mesopotamia. New York 1970; 15. *Riebt, A.*: in: FuF 1941 (17); 16. *Salonen, A.*: Die Landfahrzeuge im Alten Mesopotamien. Helsinki 1931; 17. *Schachermeyr, F.*: Die minoische Kultur des alten Kreta. Stuttgart 1964; 18. *Schneider, A.*: Die Anfänge der Kulturwirtschaft. Essen 1920; 19. *Thompson, R. C.*: Late Babylonian Letters. London 1906; 20. *Virolleaud, C.*: in: Syria 1940 (21); 21. *Waetzoldt, H.*: Untersuchungen zur neusumerischen Textilindustrie. Rome 1972.

Burchard Brentjes

2.2.7 Class relations

According to Lenin, classes are "large groups of people" [LW 29: 410], which differ from one another according to the place they occupy in a particular system of production, their relationship to the means of production and their share of social wealth. Classes are the product of a long historical development process that began at the end of primitive society.

Each of the successive social formations produced its own typical class relations, its characteristic basic classes. The most highly developed form of these antagonistic classes only existed under capitalism, which at the same time simplified the class antagonisms.

"The whole of society is splitting more and more into two great hostile camps, into two great classes directly opposed to each other: Bourgeoisie and proletariat" [MEW 4: 463].

[353] In accordance with the low level of the productive forces, the classes in the first societies that arose in the large river valley areas between the Euphrates and Tigris, on the Nile and on the Indus, had their special characteristics.

The classes were still forming in the last period of the classless primitive society. "Here, however, a society had arisen which, by virtue of all its economic conditions of life, had had to divide itself into free and slave, into exploiting rich and exploited poor, a society which not only could not reconcile these opposites, but had to drive them ever more to extremes ... The Gentile constitution had run its course. It was blown up by the

division of labor and its result, the division of society into classes" [MEW 21: 164]. The production of a constant social surplus product, the two great social divisions of labor, the development of metallurgy, the expansion of irrigation systems, the great cooperation of labor and the transformation of the exchange of products into the exchange of goods accelerated social differentiation and led to the emergence of classes.

These early class societies existed in the Ancient Near East in very small territorial units, in the midst of a pre-social environment that was hostile to them. Tribes living in primitive society repeatedly broke into the old centers of civilization and often hindered the further development of class relations, but were ultimately unable to stop them.

The formation of classes took place in close interaction with that of private property and the state, the three important processes that characterized the transition from primitive society to the first class society in human history. The economically, socially and politically ruling class created the state as its instrument of power in order to keep the oppressed class in check [MEW 21: 166]. The class division of those early societies was at the same time an estate-based division. "In the earlier epochs of history we find almost everywhere a complete division of society into different estates, a manifold gradation of social positions" [MEW 4: 462 ff]. As far as the social structure of the capitalist social order is concerned, according to Lenin it differed qualitatively from the pre-capitalist order in that in the latter the class difference was characterized by a legally fixed division of the population into estates. This division into estates was only abolished under capitalism, where classes are no longer estates at the same time [LW 6: 103]. This legally fixed division into estates was often accompanied by a gradation of the political rights of the individual estates in the state [MEW 21: 167]. The less developed a society is, the more pronounced is the division of estates, which sometimes conceals the division of classes in ancient oriental sources. The oldest class societies in the history of mankind retained remnants of the primitive social order for a long time. These gentile remnants in the economy, social structure, culture and religion were not equally pronounced in all regions and societies. One of these characteristics persisted for a particularly long time. Free farmers, organized in village communities (neighbourhood communities), constituted the main mass of direct producers in the oldest states. They had not yet lost access to the most important means of production, the land, or had repeatedly regained it in the course of class struggles in the societies of the Orient. In cult and religion, pre-social traditions were preserved until the time of the great empires of the 1st millennium BCE.

The emerging ruling class, the temple aristocracy in Mesopotamia and the pharaoh and his dependent civil service in Egypt, were [354] collectively organized. It was only in the course of the 2nd millennium BCE that individualized relations of exploitation developed more strongly. Initially, the surplus product was extracted collectively from the direct producers, the farmers and craftsmen. However, distribution relations within the ruling class were already unequal. The prince-priest or pharaoh received the main share, while the temple aristocracy or the pharaonic civil service received a graduated share. The developing class antagonism between the ruling and the ruled class existed between collectives, not yet between individuals.

The emerging class grew out of the old gentile nobility, especially the chiefly and priestly families. In the oldest river valley cultures, this process was closely linked to the requirements of irrigation farming. The central management of this system (river regulation, ma- thematic and astronomical calculations) was only possible for a small group of people who had the appropriate specialized knowledge and were exempt from manual work. In their responsibility as organizers of society, they needed power over human labour and economic resources to ensure production. The provision of the latter was made possible by the taxes paid by peasant producers and the income from the economic enterprises of the ruling class.

Class relations in ancient oriental societies were not very stable. The transition from one class to another was relatively easy.

In Mesopotamia, the transition from primitive society to class society took place for the first time in world history. Mesopotamia became the most advanced center of the Near East when the transition to a social order based on the exploitation of man by man began. A similar development can be traced almost simultaneously in Elam, the Nile Valley in Egypt and, around 2800 BCE, in the Indus Valley. These were probably independent developments. However, there were diverse cultural contacts and trade relations between these centers. In China, the emergence of the first class society took place around 1000 years later.

In Mesopotamia, large temple complexes were built at the end of the 5th millennium BCE, in which extensive production facilities (potteries, bronze forges, granaries, etc.) were located in addition to the cult buildings. They were the seat of the temple aristocracy and the center of settlements with an urban character. The temple complexes, separated from the rest of the settlement by walls [4: 65], testify to the antagonistic contradiction that had already developed in society. The property of the temple aristocracy had to be protected from the common people, the farmers and craftsmen [2: 141].

By the end of the 4th millennium BC, there is archaeological evidence of strong social differentiation and the existence of dependency relationships. A further differentiation began to emerge between the walled urban settlements and the open villages. In Mesopotamia, this ended with the subjugation of the village population to the rule of the urban settlement and the peasant population to the authority of the temple aristocracy.

With the further consolidation of the class society and the state, the following developments took place before the middle of the

In the 3rd millennium BC there were changes within the politically leading stratum of the ruling class, the most important of which was the emergence of kingship. Archaeological evidence shows the separation of the palace from the temple around 2600 BCE [2: 180] [5: 31]. Kingship emerged in resistance to the aristocracy of the village communities and the upper class of the temple priesthood [11: 52]. A new **[355]** quality of the productive forces (based on a more developed irrigation technology and metallurgy), the management and organization of production, more developed property relations and increasingly frequent military conflicts [11: 52] made a stronger centralization of state power necessary. The old aristocracy, together with its institutions originating in gentile society (council of elders), was replaced by persons appointed by the king and dependent on him - the first beginnings of an administrative apparatus [4: 70]. Economically, behind this process was the decomposition of the communal property of the village communities and the struggle within the ruling class for the greatest possible power of disposal over the surplus product, but especially over the main means of production, the land. The kings had several options at their disposal to expand their economic base: Occupation of the land reserve of the community, the temple land (this can be seen, for example, in the reforms of Urukagina around 2360 BCE) or the purchase of land.

The concentration of cultic functions in the hands of the ruler proved effective in this struggle, enabling him to underpin his rule ideologically.

In the major economies of the temples and the king, there was a hierarchical structure of ranks. The status of the priests themselves ranged from the high priest of the temple to the lower temple servants. The class of craftsmen received land from the land fund of the temple or royal economy. Here, too, there was a sharp differentiation in the size of the landless, indicating the existence of a privileged artisan class in the aforementioned institutions. Semi-free [2: 189] [8: 20] [13: 81] and slaves formed the lowest level of the hierarchical structure. The latter were propertyless and without rights. They were mainly owned by the priestly collective or the ruler, but also by the artisan class. These large farms, concentrated in the urban center, stood in contrast to the peasant family associations in the village communities,

consisting of small and medium-sized family collectives that mostly produced with their own family members. Their social and political position deteriorated with the decline of the Sumerian city-states in the 24th century BCE. Apparently, social differentiation led to the emergence of a rich peasant class. The slaves were mostly former prisoners of war. However, there were already debt and penal slaves from the local population. The sale of children by families in need also played a role as a source of slavery [3: 61] [14: 157].

As in Mesopotamia, the emergence of classes and states in Egypt was closely linked to the requirements of irrigation farming. The need for comprehensive flood control in the Nile Valley led to the early development of the centralized territorial state with the pharaoh ("great house" [2: 206]) at its head.

By developing new land (establishing royal domains throughout Egypt), the kingdom created an economic power base that was more durable than the extraction of surplus produce from the agricultural producers in the village communities. The consequence of this development was the elimination of the old local nobility, the emergence of an officialdom tied to the pharaoh and the development of the pharaoh's despotic power. The domain economy [14: 196] became the dominant form of economy, which was superior in productivity to small-scale farming due to its division of labour and better organization. The village communities succumbed to the competition of the domains and were integrated into them. In the Old Kingdom [356] (2665-2450 BCE), a corporate ruling class, the pharaoh with his dependent civil service, which was often hierarchically graded, stood opposite the class of direct producers. The latter no longer had any claim to ownership of the land and were subject to the command of the pharaoh's official apparatus. Crafts were dependent on the domains and trade was a state monopoly.

In Mesopotamia, the transition to a large territorial empire did not take place until the kingdom of Akkad (around 2350 BCE). This further consolidated the kingship, and a civil service was established that was beholden to the ruler. This initially existed alongside the local administrative apparatuses of the earlier Sumerian city-states [14: 154].

The ruler delegated some of his powers to his officials, who received natural resources and land for their services from the royal land fund. The formation of a rich village upper class led to the disintegration of the remnants of collective ownership of land [14: 154] [11: 53] in the village communities. The 2nd millennium BCE, the beginning of the developed ancient Near Eastern class society, was characterized by economic and social progress in the development of Mesopotamian class societies. The development of private ownership of land, individual and exploitation-based land ownership, progressed. Commodity-money relations expanded and the role of silver as a monetary equivalent grew. The third social division of labor, the emergence of a merchant class, took place [6: 69], and crafts and trade emancipated themselves from the large-scale economies of temples and lords. A class of private traders and merchants began to develop, usury and especially merchant capital emerged [6: 69]. These processes became clearly visible for the first time in the Babylonian period (1st half of the 1st millennium BCE).

The private economy became increasingly important in the context of overall production at the expense of royal land ownership and temple property, some of which was secularized [7: 21 ff]. A new wave of immigration to Mesopotamia (the Amurritic tribes) caused the land to be largely redistributed and ownership to be de-centralized [10: 41].

The small independent peasant economy, which was essentially run with the help of family members, received a new boost after 2000 BCE. The disintegration of collective land ownership and social differentiation within the village communities had led to the small-scale peasant producer breaking away from them [14: 161]. Even in the royal and

In this process, small owners of means of production were released [10: 41].

Important developments took place towards the end of the 2nd millennium BCE. The high level of bronze technology had led to the development of technologies that benefited iron smelting. Iron hardening became known and this accelerated the use of iron in the manufacture of production instruments. Iron was cheaper to produce than bronze, it was found more frequently and finally iron production instruments were superior to bronze ones in terms of utility value. It opened up the areas outside the river valleys and neighboring regions to people, e.g.

B. the steppes and the mountains [14: 166 f.]. In the Near East, after the turn of the 2nd millennium BC

1st millennium BCE the world empires of the Assyrians, Babylonians and Achaemenids, which were characterized by a deep class polarization. The ruling class, the king, the temple and now to a large extent the official and moneyed aristocracy, whose economic basis was above all large-scale land ownership, stood in stark social contrast to the un[357]oppressed class. For the most part, these were impoverished peasant small producers who had been expropriated from the land, expropriated in the sense that they had lost their land ownership. But as tenants or dependent farmers they regained access to the land, or they migrated to the cities. The decline of the small free peasant landowners led to the emergence of a new class of professional warriors, as they were no longer available to the state for military service. There were already mercenary armies in the Neo-Assyrian Empire.

The development of large-scale land ownership and the social division of labor intensified.

Class polarization took place under conditions of intensified exploitation of the immediate producers and a pronounced class struggle in which the masses defended themselves in revolts against the rulers [14: 182]. A certain leveling of the estates and strata of the oppressed class becomes apparent.

The incipient convergence of the various economic and social systems in the Near East was also important [12: 10]. Trade and commerce took on a new quality as a result of the development of market production, commodity-money relations and the opening up of new markets. Trade now encompassed all areas of the Near East and had reached its largest proportions to date. From the 6th century onwards, private merchants, sometimes united in corporations, dominated [6: 77]. Large private banking houses emerged. This marked the emancipation of trade and commercial capital and the suppression of the state monopoly (e.g. in Babylon: Egibi banking and trading house [6: 78]). Of great importance was the rise of the cities, now no longer primarily as a long-distance trading metropolis, temple city or seat of princes, but as a community of free citizens [12: 11 ff]. With the decline in the number of free agricultural producers and their increased mobility, the free part of the population concentrated on the cities [14: 184]. These were able to achieve a certain economic and political independence within the framework of ancient oriental society without breaking away from it. The social structure of the townspeople was strongly estates-based and largely differentiated, ranging from large landowners and influential merchants to poor freemen who had to earn their living with day labor and hired labor. In addition, there were numerous non-entitled persons within the urban population, socially differentiated within themselves, and finally the slaves. The class of slaves as a whole was particularly strongly structured along social lines. It ranged from an educated slave elite, who often acted as exploiters themselves, to the mining and agricultural slaves on large estates, who were exploited particularly cruelly. The Persian conquest of the entire Near East brought about a change in agricultural conditions. Large parts of the conquered land were confiscated by the Persian king and became his property. This mainly affected the upper classes of the conquered countries if they were not loyal to the Persian crown. Part of the land was taken up by the master's large estates, on which numerous slaves from all the subjugated territories worked [12: 12]. Another part was leased out, given to dependent farmers or lent to mercenaries who

had to pay corresponding tributes in money, kind or military services. Large parts of the royal land were granted to representatives of the Persian nobility, high (mostly identical with the Persian nobility) and low officials. Initially, rights to use land were transferred in return for service obligations (military or administrative) [14: 228] or as hereditary property exempt from state taxes [12: 12]. In the course of development, it was above all the Persian nobility, but also the official and military aristocracy of the individual countries, who acquired property rights to granted land. This was one reason for the particularistic tendencies within the Achaemenid Empire. The ruling class of the Achaemenid Empire consisted of the king and the high nobility, high officials, chief priests, private landowners, wealthy merchants and owners of banking houses [14: 229]. The oppressed class was always very diverse. However, a large number of direct producers were dependent crown peasants. As in the previous two millennia of class society, it must be borne in mind that there was no uniform socio-economic basis in the Achaemenid Empire either. In addition to highly developed areas (Mesopotamia, Syria, Phoenicia), there were areas in which pre-social or early class social structures had been preserved (e.g. eastern Iran).

Iron Age states emerged in India after the Indo-Aryans had penetrated as far as the Ganges Valley. There they encountered a pre-population, some of whose upper class merged with the tribal nobility of the Aryas to form the ruling class of Vedic society. This had a strongly tribal character. Priestly and warrior nobility with the king formed the first two estates, farmers, craftsmen and merchants the third estate. The main mass of the pre-population was incorporated as the fourth estate. Slavery existed in patriarchal form [1: 145]. In the process of a very slow social differentiation within the estates, a class society developed in the great empire of the Mauryas (4th-2nd century BCE), which in its main characteristics corresponded to the great empires of the Near East in the first half of the 1st century BCE.

With the Shang (Yin) dynasty (16th-11th century BCE), we encounter the first historically comprehensible class society in China on a Bronze Age basis. From the tribal aristocracy of the Shang, in conjunction with the aristocracy of the subjugated tribes, the ruling class of the first Chinese state emerged with a king at its head. This ruling class was opposed by the agrarian producers in the village communities, who were collectively obliged to work and pay tribute to the nobility [13: 65]. Crafts and trade were closely linked to the ruling class. It was not until the middle of the 1st millennium BC that the productive forces developed further with the introduction of iron instruments of production. Trade and crafts freed themselves from their ties to the ruling class. The communal ownership of the village communities disintegrated and private ownership of the land gradually emerged [14: 253]. Territorial rulers with their clans emancipated themselves from the central power in the Zhou state [14: 252]. Independent small states emerged with an administrative apparatus dependent on the ruler and the exploitation of individual producers through state taxes and services [14: 445 f.].

The significance of slavery in the context of ancient Near Eastern class society is still a controversial issue. Even in the oldest Sumerian city-states, the use of slave labor in the temple complexes can be proven. It was patriarchal in form, i.e. it was applied within patriarchal family communities or in collective institutions of the ruling class. As such, it became the basis of production only indirectly [MEW 20: 586]. The exploitative relationship of slavery was not yet individualized. The beginnings of an individualized relationship of exploitation can be seen in the Old Babylonian Empire, but until the first half of the 1st millennium BCE, collective forms of slavery predominated in the state, king or temple. Slaves could also be collectively owned by cities [3: 58] and villages. In all these forms, the slave was also separated from the means of production, he was mobilized and sold once and for all, but he faced a collective of owners of the means of production and of himself. It was only in the great empires of the 1st millennium BC that private slavery existed to a greater extent than before, especially in the case of large private estates.

Sources of slavery in the Ancient Near East were wars [3: 56], but also the indebtedness and ruin of free peasant and artisan producers. Debt slavery is to be regarded as a characteristic form of ancient Near Eastern slavery, both among exploiting collectives (temples, state) and private individuals. There is probably a close connection between the development of individual private ownership of land, the emergence of a class of free peasant and artisan producers and the development of slavery in ancient Near Eastern societies. As long as the free craftsmen and farmers were able to assert themselves, slavery remained limited to a narrow framework. When the free peasant producers in the Achaemenid Empire were largely inferior to the (collective and private) large landowners, slavery became more important. However, its expansion into a fundamental exploitative relationship was still prevented by the use of dependent peasant labor, tenancy, and indentured labor. These forms of exploitation were better suited to the particular geographical and social conditions of ancient Near Eastern societies than slavery. There was a close historical connection between slavery as a private property relationship and private property based on exploitation. As long as the latter was not developed far enough, private slavery, as we find it in the ancient mode of production, could not develop. "And for slave labor to become the dominant mode of production of an entire society, a far greater increase in production, trade and the accumulation of wealth is needed" [MEW 20: 149].

In the Near East, there were beginnings of the development of the ancient mode of production as well as ancient forms of slavery, which became clearly visible in the 1st millennium BCE. However, these remained subordinate to ancient oriental forms of slavery or other forms of exploitation and were unable to establish themselves due to the special conditions of ancient oriental development. Conversely, forms of ancient oriental slavery existed in ancient societies, especially in their early days and in less developed regions of the Greek world.

Literature:

1 *Bongard-Levin, G. M./Il'in, G. F.*: Drevnjaja Indija. Moscow 1969; 2. *Brentjes, B.*: From Shanidar to Akkad. Leipzig/Jena/Berlin 1968; 3. in: EAZ 1968 (9), p. 45 ff.; 4. *Ders.*: Die orientalische Welt. Berlin 1970; 5. *Ders.* in: Beitr. Entstehung des Staates, p. 27 ff.; 6. *Dandamajev, M. A.*: in: Beitr. soz. Struktur, p. 69 ff.; 7. *D'jakonov, I. M.*: in: VDI 1968 (106) H. 4, p. 3 ff.; 8. *D'jakonov, I. M.*: in: Beitr. soz. Struktur, p. 15 ff.; 9. *Jusifov, J. B.*: in: Beitr. soz. Struktur, p. 61 ff.; 10. *Klengel, H.*: in: Beitr. soz. Struktur, p. 39 ff.; 11. *Ders.*: in: Beitr. Entstehung des Staates, p. 36 ff.; 12. *Weinberg, J. P.*: in: Klio 1976 (58), p. 3 ff.; 13. *Die altorientalischen Reiche*. Vol. 1, Frankfurt/M./Hamburg 1965; 14. *Weltgeschichte bis zur Herausbildung des Feudalismus*. Berlin 1977.

Marlene Njammasch [360]

2.2.8. War, warfare as an economic factor

With the emergence of the state as a "public power distinct from the mass of the people", armed forces are created in which not every male member of society can join, but which are primarily composed of representatives of certain classes of society [MEW 21: 95, 103]. Either the warriors come from the lower classes, and military service is a compulsory obligation, or they are members of the upper classes who engage in war as one of the few activities appropriate to their position. In the first case, a class of commanders is formed alongside the mass of warriors; in the second, the participation of the lower classes in the army is excluded as far as possible or limited to auxiliary services. It goes without saying that there are numerous gradations in between. In addition, there was mercenary service. The respective legal status of the warrior determines his economic position (or vice versa), and the composition of the army has an effect on the whole structure of society. An examination of warfare in class society from the point of view of economic history must examine the following questions: Which classes do the warriors come from? How are the armed forces maintained? What equipment do they have, how is it produced, and who pays for it?

What economic goals can be identified in warfare, and what drastic economic changes were brought about by wars? The important question of the size of armies cannot be dealt with in this context.

Near East [1] [2] [9] [11] [13] [17] [19]. For the 3rd millennium our knowledge is essentially limited to the equipment: the ancient Sumerian warriors wore helmets made of leather or copper and carried high and wide shields, daggers, maces, long spears, axes and a sickle-shaped weapon, the use of which is disputed. The "standard" from Ur (around 2700) already shows chariots, which were not drawn by horses (still unknown in Mesopotamia) but by half-mules. In the Early Dynastic period, the art of fortress building flourished for the first time. It is striking that the Sumerians did not yet know the bow. It was first used by the Akkadians, whose king Sargon (2340-2284) founded the first great empire in the Near East. Perhaps the military superiority of the Akkadians was partly due to this device. One of the most important weapons, the sword, was first found in the 2nd half of the 3rd millennium on Cyprus, whose abundance of copper led to an early boom in blacksmithing.

The laws of Hammurapi (1792-1750) shed light on the structure of the ancient Babylonian army: military service is a duty of various lower classes of society, who are also required to perform other services. The inhabitants of certain cities (or members of certain professions?) are exempt from it. There are warriors who receive an inalienable piece of land from the king, which is inherited with the duty of service. If such a conscript sends a hireling to the army as a deputy, he faces the death penalty. Obviously, the members of this class wanted to avoid the economic burdens of military service under Hammurapi, which they later succeeded in doing. All conscripts are entered in muster rolls and are called up as required according to a predetermined plan. The king also had a standing army (his bodyguard). The army is equipped at state expense. The cities are obliged to provide for the upkeep of the warriors. They were therefore exposed to heavy burdens during prolonged, unsuccessful wars. In the 2nd half of the 3rd millennium, the rulers of Lagash had already curtailed the rights of their subjects due to [361] their policy of conquest, increased taxes to the extreme and seized temple property [12: 47]. The strength of the ancient Babylonian armies rested on the foot soldiers. The main weapon remained the bow. The horse was well known, but there were no longer any chariots. The horse-drawn chariot with spoked wheels marked the beginning of a new development in the 2nd millennium BCE and came to full fruition in the Mitanni state through the Hittites and Kassites. The Old Babylonian period saw a new upswing in the art of fortress building and sieges. There are even surviving texts with mathematical tasks for fortifications and sieges [14: 87 f.]. The compulsory military service of the lower classes, who were called up as required, as well as a small standing army, the closest connection between warfare and the written administration and the endowment of certain warriors with lands can also be found elsewhere in the Near East. In Ugarit, the tribal rolls record not only the names of the conscripts but also the weapons belonging to them. From the writings of this kingdom we learn explicitly that all warriors received their equipment from the state arsenals and that it was made by royal craftsmen [6]. Early forms of mercenarism can be seen in the use of nomads in the service of Mari, Babylon and other states [10: 188 ff]. Mercenarism explains the rise of the Kassites (16th century BCE): Members of this people had originally come to Babylon as laborers. Later they took up military service. Eventually, the mercenaries made themselves masters of the land. The Kassites formed a class of privileged landowners who were both warriors and civil servants. Their main weapon was the chariot, and it remained so for centuries in the Near East. Its manufacture required the cooperation of several craftsmen under a single management. The manufacture of other weapons was also subject to state supervision. They were kept in the arsenal and records were kept of their condition. The ruling Kassite warrior class ruthlessly exploited the other classes. Incidentally, chariot fighters everywhere, including in India and China, came from the upper classes.

The Hittite Empire (17th-12th century) was surrounded by enemies and its military power was of great importance for its survival. Apparently there was also a standing army and mercenaries. The Hittites often deported inhabitants of a conquered area and settled them in their empire according to economic considerations. If these abductees (the NAM.RA) fled, their non-extradition was often the cause of a war with the neighboring state in question. The plunder of people and goods played a major role in the Hittite economy. The Hittite fortresses and roads are remarkable. The Hittites had apparently prevented the export of iron, the earliest processing sites of which were located in their territory. After the fall of their empire, the use of iron spread rapidly, initially in the manufacture of weapons. Thus, the destruction of Hittite power by the Sea Peoples marks the beginning of the Iron Age [4] [8].

The Assyrians extended compulsory service to subjugated peoples. Such conscripts were probably deployed as lightly armed (slingers). The Assyrian foot soldiers carried bows, shields, swords and spears. They wore a helmet and a suit of armor. Their chariots, drawn by two to three horses, were manned by three, and ultimately four men. Under Assurnasirpal

II (883-859), mounted warriors appeared for the first time. From Tiglathpilesar III (745-727) onwards, there was a standing army. Sennacherib (704-681) and his successors even enlisted prisoners in their forces. Both indicate the presence of mercenaries. The Assyrians also had "technical" troops who repaired roads, built bridges and manufactured weapons. The [362] art of siege and fortress building reached a peak in the late Assyrian period (sieges of cities lasting for years, siege engines, construction of fortified camps). The Assyrians' warfare is particularly indicative of their economic goals: The subjugated outlying areas supplied goods of all kinds. Defeated soldiers were abducted en masse and settled together (not sold individually as with the Greeks and Romans) in order to alleviate the shortage of labor in Assyria. During the retreat, the Assyrians destroyed the villages, fields and orchards. The attention they devoted to war in their written and pictorial works has given the Assyrians a reputation for particular cruelty; however, warfare was not significantly different anywhere in the Near East (cf. the Old Testament).

The Neo-Babylonian kings seem to have waged war mainly with mercenaries. They also settled warriors, but in contrast to the Old Babylonian period, it was customary to pay them off.

In the Persian Empire, the Iranians formed the warlike upper class, both as a standing army (the "ten-tailed") and as military settlers. There is evidence of non-Persian mercenaries in the outlying fortresses. During a war, the satraps called on helpers from the local population. The Medes and Persians were mounted archers who also wielded the lance and shield. Judging by finds from the arsenals, these weapons had uniform dimensions. The Persians did not develop heavy foot soldiers. In later times, the great kings therefore took Greek hoplites into their pay. The army was maintained from the high taxes, which included food, horses and cattle for slaughter. The Persian Empire brought peace to huge areas for a long time and thus favored trade and exchange. The astonishing construction of roads (just think of the connection from Ephesus to Susa), which had originally only served war purposes, facilitated traffic over long distances, especially as the roads were protected from robberies by guards [3] [15].

Egypt [5] [7] [18]. Military service as a compulsory obligation is particularly evident here: each district had to provide a certain number of soldiers who either went to war or to work (for example in the quarries). The connection between public work and military service was maintained for the local foot soldiers right into the New Reich. In addition to the conscripts, there is evidence of Nubian mercenaries as early as the 6th Dynasty (2423-2263). The troops were armed by the state. In the New Kingdom, special armory workshops were associated with the arsenal. Economic considerations appear to have played a role in the wars at the beginning of the 3rd millennium (conquest of the copper mines on Sinai). In the Old Kingdom, the original unity of war and plunder is still clearly recognizable. During the Middle Kingdom, the

The Hyksos' efforts to conquer the gold and copper mining sites of Nubia, the possession of which probably contributed to Egypt's prosperity under the 12th Dynasty (1991-1786). The reign of the Hyksos (1730- 1562) brought about drastic changes. Although it is no longer undisputed that the horse first came to Egypt with them, the chariot cannot be proven to have existed before their time. It was the main weapon in the conquests of the 18th and 19th Dynasties (1562-1171), which led to the influx of great riches from the Near East. The rulers of this period tried to make the career of a chariot fighter attractive to noble young people through land grants and tax exemptions. Apparently, the expensive chariot had to be paid for by the fighters themselves. After the 20th dynasty (1171-1085), the noble chariot fighters died out and the chariot lost its importance. A professional warfare of foot warriors emerged. The army was supplemented by prisoners of war who were settled on temple estates. Libyan mercenaries steadily increased in [363] number and succeeded the pharaohs as rulers of Egypt in the 22nd Dynasty (950-730). The 26th Dynasty (663-525) not only maintained lively trade relations with Greece, but also relied on Ionian and Carian mercenaries.

Egypt was the only major empire in the Middle East with its own fleet. The other rulers had to rely primarily on the Phoenicians, who had already built seaworthy ships in the 3rd century. In addition to Egyptian and Cypriot ships, their naval power was also available to the Persians. From around 2000 to 1600, the Cretans had naval supremacy in the Mediterranean. There is an opinion that the Hyksos were driven out of Egypt with the help of Mycenaean warriors, whose voyages across the sea were made possible by the collapse of Cretan naval power. The Mycenaeans had taken over the chariot [16: 94]. In any case, the main tool of the Mycenaean warrior was the chariot. It was just as much an expression of the uniformly managed palace economy as the fortifications of Mycenae, which are among the most remarkable buildings in world history.

Literature:

- 1 *Bonnet, H.*: Die Waffen der Völker des alten Orients. Leipzig 1926; 2. *Contenau, G.*: La civilisation d'Assur et de Babylone. Paris 1951; 3. *Dandamaev, M. A.*: in: Istorija iranskogo gosudarstva i kul'tury. Moscow 1971, p. 95 ff; 4. *Goetze, A.*: Asia Minor. Munich 1957; 5. *Härtel, G.*: in: Welt- geschichte. Leipzig 1971, p. 17 ff.; 6. *Heltzer, M.*: in: Beitr. soz. Struktur, p. 125 ff.; 7. *Kees, H.*: Ägypten. Munich 1933; 8. *Klengel, E./Klengel, H.*: Die Hethiter. Leipzig 1975; 9. *Klengel, H.*: Geschichte und Kultur Altsyriens. Leipzig 1967; 10. *Ders.*: Zwischen Zelt und Palast. Leipzig 1974;
- 11 *Klengel-Brandt, E.*: Reise in das alte Babylon. Leipzig 1970; 12. *Kramer, S. N.*: Geschichte beginnt mit Sumer. Munich n.d.; 13. *Meissner, B.*: Babylonien und Assyrien. Vol. 1, Heidelberg 1920; 14 *Opifcius, R.*: in: Bagdader Mitteilungen 1964 (3), pp. 78 ff; 15. *Osten, H. H. von der*: Die Welt der Perser. Stuttgart 1956; 16. *Schachermeyr, F.*: Die minoische Kultur des alten Kreta. Stuttgart 1964; 17. *Schmölzel, H.*: Hammurabi von Babylon. Munich 1958; 18. *Wolf, W.*: Die Bewaffnung des altägyptischen Heeres. Leipzig 1926; 19. *Die altorientalischen Reiche*. Vol. 2 f., Frankfurt/M. 1966 f.

Matthias Springer

2.2.9. Agriculture

In the economic history of the Ancient Near East, agriculture was of particular importance, as it was the "specific production that assigned rank and influence to all others, and whose relations therefore also assigned rank and influence to all others". "Among peoples with established agriculture... even industry and its organization and the forms of property that correspond to it have a more or less fundamentally proprietary character" [MEW 13: 637].

However, the analysis of the legal forms of agrarian economy, in which the social role of agriculture was reflected, is very difficult. As a rule, the legal concepts of ancient oriental states are interpreted according to concepts of Roman law and "property" is seen as the opposite of "ownership". However, Marx used the concept of property so little in "Capital" that it is missing from the indexes of the three volumes. He wrote about the epoch

of the original accumulation of capital: "Private property, as opposed to social, collective property, exists only where the means of labor and the external conditions of labor belong to private individuals. But depending on whether these private individuals are workers or non-workers, private property also has a different character. The infinite shades which it presents at first sight only reflect the intermediate states lying between these two extremes" [MEW 23: 789]. If "infinite shades" already appear in the period of emerging capitalism in the regionally narrowly limited area of origin of this mode of production, how many more have there been in the vast spaces of the Orient in the millennia since the emergence of exploitation? The essence of private property is therefore the disposal of the means of production, regardless of its legal form, and it would be a mistake to want to recognize only the property of individuals as private property for pre-capitalist societies. Marx named collective property, the means of production owned by society as a whole, as the opposite of private property, which therefore cannot serve as a means of exploitation. Private property in the hands of workers can belong to individuals, families, clans or other groups within a class society, just as private property in the hands of non-workers can belong to individuals or groups: the king, the palace or the temple. This property is often confused with social property as state property or as the property of a "society" and its opposite is seen as "individualized" property. However, the number of owners is irrelevant to the character of property, and the emergence of individual owners in the texts is a form of the comprehensive development of the commodity economy, in which land also becomes a generally traded commodity, a process that is already demonstrable in the early dynastic period, but should not be equated with the development of private property (as the disposal of the means of production).

According to Marx, we have to regard the "secondary formation..., the series of societies based on slavery, serfdom" as the first "society based on private property" (followed by capitalism as a tertiary formation) [MEW 19: 404], in which there was "a whole series of primary, secondary, tertiary etc. types" [MEW 19: 386]. types" [MEW 19: 386]. Marx's characterization of "the primitive communities", the primary formation, also applies to the "secondary" formation: "Their totality, on the contrary, forms a series of social groupings which differ from one another both in type and age and which mark successive phases of development" [MEW 19: 402]. Another factor in the development of production and society, the dependence of agriculture and animal husbandry on environmental conditions, is so important that the change in the environment cannot be ignored in the development of production and society. The analysis is complicated by the fact that the effects varied greatly from region to region.

At the height of the last ice age, the Near East was arid (lat.; dry, arid), as the regression of the sea had drained the Persian Gulf and the water surface of the eastern Mediterranean (with a fall in sea level of around 110 m) was also significantly reduced. The glacial boundary was about 2,000 m lower, and the highlands covered an arid arctic steppe. North Africa, on the other hand, received more abundant rainfall from the pluvials - a monsoon sequence whose moisture came from the ice sheets of the north. The transgression (lat.; advance of the sea through depressions of the mainland) that began around 15000 BCE caused North Africa [7: 369 ff.] to dry out - in the Near East, however, the Persian Gulf developed in stages [18: 101 ff.] and [365] the amount of rain in the mountains of northern Iraq, northwestern Iran and southeastern Turkey increased due to the evaporating moisture of the Mediterranean drifting eastward.

While the lowlands became desolate, the cold steppe of the highlands was replaced by a forest [21: 33 ff.], which, after a temporary dry phase around 8000 BCE, grew between 5000 and 4000 BCE. BCE, which developed in parallel with the highest sea level of 3 meters above sea level.

This sea level peak pushed the coast in southern Iraq and the area south of the Persian Gulf many kilometers inland and increased the amount of rainfall. This was the

This is the basis for the expansion of the arable Obed culture in southern Mesopotamia as far as the present-day oasis of Buraimi. The hinterland, the zone of today's central deserts of Saudi Arabia, must have been steppe land at that time and provided space for semi-nomadic agriculture and animal husbandry.

The Saharan Pluvial Period, for which two stages can be identified, the period between 5600 and 4000 BCE [5: 449], which corresponds to the Mesopotamian Moisture Optimum, and the period from 3500 to 2500 BCE, in which the water supply seems to have been weaker than in the previous stage [6], corresponded to the Moisture Optimum of the Near East. The two wet periods in the Sahara were the ecological basis of animal breeding nomadism in the Sahara highlands, the artistic legacy of which are the rock art galleries of North and West Africa. The developing dryness forced the development of the Nile Valley and the clearing of the plateaus.

In Europe, the wet phase corresponds to the Atlantic period (5500-3500 BCE), the expansion phase of agriculture into Central and Western Europe. The dry interval between the two humid phases caused the Arabian Peninsula to dry out and the coastal zone to become deserted. The second moisture advance was too weak to restore the colonization capacity of northeastern and central Arabia [9: 150].

After the end of the 4th millennium BCE, an aridization phase set in - the first peak of which was reached around 2000 BCE - which must have led to the migration of the nomads due to the devastation of the steppes. It was the time after the Martu migration, the invasion of the Amurru into Mesopotamia.

A second, far more intensive drought optimum formed around 1300-900 BCE [24: 97 f.], again indicated by a strong salinization horizon, which is particularly pronounced in today's marshy southern Iraq. During this period, Babylonia and Assyria were deserted, while in the north, in Asia Minor and Syria, nomadic migrations from the Syrian desert and the "Sea Peoples" storm devastated the ancient states.

This was followed by a relative cooling with an increase in rainfall, which reached its maximum between 500 and 300 BCE. This was followed by another dry period, which reached its peak around 700 BCE [8: 143 ff.], the period of Islamic expansion. The 13th century is then again comparable as a drought phase.

The devastating consequences of even relatively small fluctuations in humidity for the economy of steppe nomads and semi-nomads were demonstrated by the Sahel catastrophe of 1971-1973 [3: 49], so that Holocene geology and its results must also be used to explain historical processes for older periods.

For various reasons, international research has only been able to turn its attention to the early Oriental period, the era of the "agricultural revolution", in the last three decades. Only a small number of early settlement sites have been investigated. Added to this are the difficulties of the find material, on which we are solely dependent for times before [366] the invention of writing. The earlier the stages of development, the fewer the human-induced changes to plants and animals and therefore the less recognizable they are. Since archaeological finds also contain only very randomly preserved items, mostly stone tools, pottery and bones, their classification is very difficult and is often dated very differently.

Nevertheless, it can be said that according to the current material available, the transition to the cultivation of various types of grain was apparently complete in some centers by the end of the 9th century BCE. Permanent settlements (e.g. Jericho with around 2,000-3,000 inhabitants) with powerful fortifications were built here.

During this time, the form of economy that we refer to as agriculture in the unity of arable farming and livestock breeding finally emerged. The cultivation of wheat and barley became increasingly important in the economy. The smaller herd animals were joined before the end of the

The domestic cattle, which appears to have been domesticated in the Asia Minor-Greek region, was introduced in the 7th millennium. Finds from Çatal Hüyük [17: 224] attest to the cultivation of emmer, einkorn, six-row barley and bread wheat, as well as field and purple peas and lentils in the 7th millennium. Acorns, hazelnuts, pistachios, apples and other fruits were collected. *Rubia tinctorum*, *Tsatis tinctoria* and *Reseda luteola* were apparently used to dye textiles. It is not possible to determine whether these "technically" usable plants were already being cultivated. The materials consisted of animal hair. No farming tools have survived. The basis for cultivation in the eastern Anatolian-Iranian highlands and in the "fertile crescent" of the mountain fringe zones towards Iraq were the evaporation clouds that formed over the eastern Mediterranean. However, only high-lying cloud fields reached these areas. The lowlands remained without precipitation.

Profound changes in material culture were necessary for the development of "sedentary agriculture": the development of permanent architecture, the emergence of a system of vessels that could be used over the long term - pottery - and the development of appropriate implements and tools. The settlement structures in Jericho or Çatal Hüyük, for example, show that the communities were still organized along primitive social lines. In them, primitive society reached its highest form and at the same time its limits. Any further progress pointed beyond them, had to dissolve and disintegrate them.

The transition to irrigated agriculture in the Syrian-Iraqi region took place in the 6th and 5th millennia. Population pressure forced the settlement of areas with irregular rainfall and ultimately the development of regions with less than 200 mm of annual rainfall, a transition that took place in the 6th millennium. Preliminary stages probably already existed in the arid zones of the mountainous region, such as the Jericho Valley, which had a rich spring, but which was too deep for the majority of the fields, so that it must have been dammed and artificially distributed.

There is archaeological evidence of the beginnings at the edge of the rain-fed zone in eastern Iraq and northern Susiana. Ali Kosh [8] provides evidence of one of the earliest forms of irrigated agriculture, the settlement of lake and swamp fringes in order to use their moisture for agriculture.

In the Gangir region, evidence was found at Choga Mami that canals distributed the water of small natural watercourses beyond the dry border [19: 115 ff]. A third variant developed as the farmers advanced further into the river plains of Iraq: river-edge irrigation, which can be documented around the turn of the 5th millennium.

In a strip of 5 km on either side of the Euphrates and its tributaries [367], hundreds of examples of a tool typical of early Mesopotamian irrigation agriculture, the sickle made of baked clay, were found next to the villages. For a long time, agriculture must have been limited to this strip of land, for the cultivation of which the labor of the 400-500 inhabitants of the villages was sufficient. Riverside irrigation was not limited to the arid zones of the south. It could also be applied in Syria and northern Iraq. With the implementation of irrigated field cultivation, a considerable increase in productivity was possible, for example for cereal cultivation to 615 kg per ha compared to 410 kg for rain-fed cultivation. For flax, the yield rose to 440-620 kg compared to 330-405 kg [22: 90].

Increased productivity made it possible for the population to grow. The implementation of irrigated agriculture, which was to become the basis of ancient oriental class societies, required tasks that could not be accomplished by individual workers, but only through the coordination of many producers (large-scale cooperation). The expansion of arable land depended in principle on the number of workers to be united for cooperation and the possibility of organizing them. In the Near East, the Euphrates valley was the center of irrigated agriculture, while the Tigris was avoided for a long time because of its fast current, dangerous floodplains and the high salt content of its water.

Irrigation farming also developed in the Nile Valley in the 5th millennium BC, in the Indus Valley in the 4th millennium BC at the latest, and probably even earlier in the Huang He river basin, whereby the different geographical

conditions led to different techniques and forms of irrigation farming. In flat southern Mesopotamia, the water had to be distributed via canals and only raised to a limited extent by barrages or hoists. The large number of small Susiana rivers and their sometimes steep gradients made it easier to distribute the water via canals and dams, although only a few examples of these have survived from later times. The highest level of ancient oriental irrigation technology is represented by the dam bridges of the Susiana, such as the dam with road bridge from the time of Shapur I (mid 3rd century CE) near Schuster.

In the past decade, a channel from the Middle Islamic period [13: 15 ff.], in which today's Khuzistan was one of the centers of the ancient cultural world, has been restored. Studies carried out in recent years (e.g. [15]) suggest that the processes of population concentration and regional organization that led to the formation of the state took place here for the first time. The results of a topographical survey of the settlements, organized according to periods, revealed the following development phases for the 4th millennium:

Susa A: 18 settlements with an area of 30 ha, so that 0.75-1.22 ha are allotted to each village. They are divided into 3 groups, with 2 villages having a clearly prominent center of 5 ha each.

Early Uruk: 49 settlements with 95 ha are divided into a three-stage sequence, the uppermost stage of which is a

"City" with 12 ha, the middle 2 centers with 5.08-6.45 ha area and the lower 45 villages with 1.22-1.45 ha area.

Middle Uruk: 52 settlements with 127 ha are divided into 4 levels: Villages with 0.75 ha area; large villages with 2.3 ha area; "centers" with 5.31 ha area; towns with 9.56-25 ha area.

Of these, the latter proved to be the sole seats of the crafts, which indicates a division of labour between town and country, which, like the structure of the whole, suggests a state organization of a class society according to territory.

[368] *Late Uruk:* The settlements in the western part of Susiana were largely abandoned, and Susa alone was reduced in size from 25 to 9 ha. In total, only 41% of the area was still inhabited. Only the East Susiana center of Chogha Mish grew by 8 ha.

Apparently, fighting had led to the interruption of the development, which was now centered in Uruk, 280 km to the east. The following development was observed here (whereby the "Early Uruk" stage can be equated with Johnson's Early and Middle Uruk [1]):

Early Uruk: 1 city (?) 3 centers and 17 villages.

Then follows the decline of Elam.

Late Uruk with 1 city, 10 centers and 112 villages, so a population shift is to be expected.

Jemdet-Nasr and Early Dynastic I period: 124 villages, 20 centers, 2 towns and 1 large city, an era of pronounced dominance of one city (Uruks) in southern Mesopotamia.

The Early Dynastic II and III periods, on the other hand, with 17 villages, 6 centers, 8 towns and 2 large cities, show a structure characterized by the coexistence of mostly 10 more or less equally powerful cities.

The productivity of irrigated agriculture very quickly led to the concentration of the population, its growth and regional organization, and the formation of the state. The state apparatus was also responsible for the economic function of regulating the irrigation structures, which were, however, tied to the conditions of a river valley that could not be organized as a uniform system. As long as the original development center had political power, it was able to control an association of de facto self-sufficient communities of villages oriented towards "centers". But the "Centres" used the given possibilities of the regionally structured "irrigation provinces" to become independent, and the city-state system that was characteristic of Sumer emerged. A fortified city with several tens of thousands of inhabitants cultivated an area of

This was a contiguous area separated from the nearest towns by a deserted strip of land. This form of settlement and state proved to be relatively stable as long as the natural conditions were preserved, in particular as long as the soil fertility had not yet been spoiled by salinization. Other forms of settlement and state emerged in the mountainous agricultural landscapes of central Iraq, for example in the Diyala region, where each valley formed a state unit dominated by several towns. The southern Mesopotamian Sumerian irrigation province was a complicated system of quite intensive land cultivation and cattle breeding. Only the main irrigation network was probably organized by the state as a whole, but this has not yet been reconstructed for any of these city states, nor for the large states that followed in the late 3rd millennium. Aerial photographs show many old canals 6-25 m wide. A Kassite clay tablet from Nippur shows the canal system of an area. Many royal inscriptions report on the construction or maintenance of canals and reservoirs [10: 90 ff].

Soil cultivation was carried out partly in plots, partly on large estates. The legal forms in which the Sumerians became aware of this class division into landlords, plot farmers and "agricultural workers" are rather complicated, as they still bear clear traces of the earlier tribal structure. In addition, the available sources come only from the large farms, which is why they say nothing about the villages.

The inhabitants of the city appear to **have** been organized predominantly in cult communities [369], a religiously disguised form of the "local tribe", the replacement of the gentile association of the primitive society. The city was made up of several cult communities and in turn formed a community association of the city god, which formally owned the entire country. Each cult community had a share, which was apparently redistributed annually according to class. Only members of the cult community were entitled to a share of the land. The craftsmen received 35-105 acres, the cooks and bakers who had direct contact with the ruling class 70 acres-2.11 ha and the representatives of the ruling class 15-20 ha each. They also held priestly functions. Even in the Sumerian temple city, private property in the hands of the laborers and private property in the hands of the non-laborers were thus opposed to each other, which also included the royal property outside the cult community order, which was expanded partly by purchase and partly by occupation of land from private ownership or temple land. King Lugalanda of Lagash, for example, owned 161 ha of land and his wife Baragamtara another 66 ha. These were estates which, like the land owned by the priests, were worked by people called "schublugal" ("royal subjects"), who were apparently originally state slaves. They were also used for police and army service.

Contrary to many claims to the contrary in the literature, the soil was for sale. Field purchase contracts from the early dynastic period name kings, priests and private individuals as buyers as well as individuals and groups as sellers. In some cases, the appearance of seller collectives has been interpreted in the sense of family ownership and contrasted with private ownership. But even under capitalist conditions, private property does not only appear as the property of an individual, and the view of Sumerian "group property" as a family property is merely an interpretation based on Akkadian conditions, under which the "houses" owned by families of free men comprised entire villages. In them, the semi-free "Gurush", who were bound to the land but not enslaved, were exploited as laborers [12: 225 f.].

It was therefore clearly a form of domination over the labor of others with the help of the disposal of the land - private property. Actual slaves hardly played a role in agriculture. They were only used for heavy labor and unskilled work.

The collapse of the city-state system based on the irrigation provinces occurred in the late 3rd millennium. A major role was played by the salinization of the soil, a negative consequence of irrigated agriculture caused by the evaporation of saline river or groundwater. 0.7% salt in the soil does not allow wheat to thrive, and at 1.7% barley cultivation ceases to produce yields.

The temple archives of Mesopotamia allow the salinization to be measured by the decrease in yields. For example, 2,537 liters of barley per hectare are mentioned for the period around 2400, for 2100 only 1,460 liters and around 1700 BCE only 897 liters [23: 160]. Wheat, which was cultivated in equal parts with barley around 3500, fell to $\frac{1}{6}$ by 2400, to 2% by 2100, and had disappeared by 2000 BCE. As salinization affected almost the entire area along the lower Euphrates, the Sumerian city-states began a gradual decline in which social contrasts intensified.

The only way out was the transition to a large territorial state, which could also draw on the waters of the Tigris and thus open up the space between the two rivers. In this way, around 30,000 km² of land was irrigated in the empire of the III Dynasty of Ur, and this area formed the center of the states dominating southern Mesopotamia for the following 500-700 years. However, salinization continued here as well, which [370] caused the area to fall behind the states of northern Mesopotamia, which were predominantly based on rain-fed agriculture and river valley irrigation. The latter were not affected by salinization, but by fluctuations in rainfall.

Agriculture at this time was characterized by the coexistence of state and private land ownership and parcel farming. Slaves and wage laborers played a major role. The large hydraulic engineering projects and the harvesting work on the large estates were carried out using hired or rented labour [23: 33], some of whom were migrant workers from the mountain or nomadic regions. The large-scale economies of southern Mesopotamian temples also included livestock farming, with accounts of individual temples listing 60,000 sheep per year as property [11: vol. 4.2,6].

The attempt of the III Dynasty of Ur (ca. 2100-1955 BCE) to organize large parts of the country's economy on an administrative basis did not involve the abolition of private property. It was merely an attempt to monopolize the land in the hands of the king and his family. This "monopoly" necessarily broke down as the king had to leave labor and land to other parts of the ruling class to exploit.

In an exploitative society, "state" property is always property in the hands of the ruling class, the non-working people, i.e. de facto private property, i.e. not "social" property. Forms of "state" property remained until modern times, but since the collapse of the III Dynasty of Ur they no longer constituted the main form of private property - in the sense of the disposal of other people's labor. Wholesalers are mentioned as private owners of entire villages as early as the 2nd millennium BCE [16].

In the Indus Valley, many meters of fluvial deposits cover the ancient arable land of the Indus culture, so that we are not informed about the concrete forms of agriculture of the Indus culture. They probably resemble Egyptian agriculture on land irrigated by the flooding of the Nile more than the canal irrigation system of the Near East. Certainly, both the Indus and Nile valleys benefited from the continuous flooding with nutrient-rich mud as a residue, which prevented salinization. However, the lack of surviving texts does not allow any similarly reliable statements to be made about Egyptian conditions.

Here the yield, and even the levying of taxes, depended on the height of the flood. The arable land in Upper Egypt, which was limited to the river valley, was divided into irrigation provinces, each of which had its own water authority. They comprised 12-80 km² of land. Farmers were forced to reconstruct canals, dykes and reservoirs after the floods. Water management was limited to the administration and distribution of the reservoir water. The field work was mainly small-scale production. There is evidence of isolated dams on tributaries of the Nile [11: vol. 2, 30 ff]. One under Ramses

II (around 1300 BCE) near Homs in Syria, a dam 7 m high and 170 m long is still in use today. However, the masters of reservoir irrigation were the peoples of South India and Ceylon. Around 53,000 dams are mentioned for the Madras region, and the 494 BC.

u. The Anuradhapura reservoir, which was built in the late 19th century, had a reservoir area of 223 m². The Kalawewa dam, whose reservoir is 50 km in circumference, is over 15 km long. An elaborate canal system distributed the water across the plains, which were primarily used for rice cultivation.

The artistic representations of class society reveal the types and forms of the equipment inventory. The basic implement of irrigation tillage is the plow, the ancient Indian form of which we do not yet know. In southern Mesopotamia and Egypt, the same basic type was used, a plow consisting of two poles connected in a share, the upper ends of which form the handles, and a "drawbar". At the height of southern Mesopotamian agriculture (in the late 3rd millennium), a seed hopper was added.

Northern Mesopotamia and the mountain regions always worked with a plow that consisted of a drawbar and only one working and handle bar.

In Egypt, the two-part hoe was used in addition to the plow, in the Elamian region the karst and in Mesopotamia the long spade. The attachment of two ropes to the spade blade turned the digging implement into a tool for digging canals that could be operated by two to three men, the pull spade. For the period before 1000 BCE, only one tool for lifting water, the shovel, has been documented with certainty. It was not until the Iron Age, for example, that the roller, the paternoster, the saqia, which was moved by animals via a cogwheel, and the treadwheel were discovered. A water lift raised and lowered by animals running back and forth in a straight line is the Tscherd, which probably also originated in the 1st millennium BC.

The "Archimedean screw" and the water wheel driven by the flow of the river itself do not seem to have appeared until the Hellenistic period.

The sickle, which had been used as a harvesting tool in Mesopotamia since the 4th millennium BC and in Egypt only since the 2nd millennium BC, remained in use.

Z. was made of copper. We know of the first steel sickles from Assyrian times. Until the 1st millennium BC, the friction mill remained the main grain processing tool, even though the rotary mill had already been invented in India in the 3rd millennium BC.

The oldest device for separating the grains from the ears is a ceramic bowl with corrugations, which has been documented since the 6th century. The beating out of the grains with sticks is once depicted in Egypt. It was more common for the grains to be beaten out by herds of animals on the threshing floor. Animal-drawn threshing sledges were restricted to the Near East in antiquity.

In the regions of the former Persian Empire and, subsequently, the Arab-Islamic Empire and its sphere of influence, a very different type of irrigation method, the qanat technique, has survived into modern times. Wells up to 300 m deep were drilled into groundwater sources and the water was channelled through canals, often many kilometers long, to the fields in the mountain valleys or oases or to the cities for drinking water supply. This process can be traced from Spain to East Turkestan and as far as the Sahara. For the first time, it allowed the agricultural development of plains and mountain valleys in Media and Persia that were not crossed by rivers. The inventors of this technique may have been the Urartians of Transcaucasia, whose mastery in the construction of canals and tunnels - even through rock massifs - is well known.

For the Iranian peoples, this irrigation economy became the basis of their class society and their military power, which enabled them to subdue the river valleys of the Indus, the Near East and Egypt. Although the productivity of the river valley irrigation was not achieved, their own was developed to such an extent that a powerful army could be built up on the basis of the still young class society, which ended the independence of the river valley countries. In addition to technical differences, there was above all a significant difference in the social organization of production. The prerequisite for the irrigation of the river valley was the repeated gathering of large numbers of workers to build and maintain the dams and canals, a feat that required administrative organization. The qanats were constructed and maintained by small specialist teams of five to ten men. The prerequisite for their work was dominion over the land, which thus also became dominion over the water. The "lord of the water" controlled the villages dependent on "his" water, as no farmer could create and maintain a qanat. The abolition of large-scale land ownership in today's Iran without the organization of irrigation at state or cooperative level led in less than a decade

This led to the decay of 70% of the qanats and thus to the impoverishment of the villages and the rapid decline in Iranian food production.

Thirty years ago, the approximately 40,000 qanats still had a water flow of 500-750 m³ per second, the same amount of water as the Nile near Cairo. It was used to irrigate half of the arable land [21: 313 ff].

The technical foundations of qanat construction were evidently the steel tools of the Iron Age and the experience of mining and well construction. Alongside qanat irrigation was the considerably older rain-fed technology, which was mainly preserved in the drainage area of Lake Kaspi [2].

More difficult to date is the system of trough terraces used in many Near Eastern mountain regions, which enabled the rational use of the sparse spring deposits [20]. They are widespread from Palestine to Afghanistan and were used both on the mountain slopes facing away from the rain and on the slopes receiving seasonal rainfall. They appear to predate the qanat technique. Another form of channeling rainwater runoff into the non-irrigated hinterland was the damming of the wadis (e.g. Marib in southern Arabia). The flooded terraces of East and Southeast Asian rice cultivation are not known to have existed before the 2nd millennium BCE [11: vol. 2, 16 f.]. Their construction by individual farmers is unthinkable. It requires at least village collectives. The necessary dam constructions in the lowlands of Southeast Asia and East Asia developed for rice cultivation require, like the river valley irrigation of the Near East, a state organization of work.

In the course of the development of agriculture, many techniques, working methods and forms of organization emerged that formed the basis for the social structures of the Ancient Orient. What they had in common was only the general outline, the production of the main values of society by the agricultural producers and their exploitation by the ruling class. The concrete forms, however, were determined by the peculiarities of the agricultural production developed in each case.

With the development of agriculture and livestock farming, the economic role of hunting declined. It was mostly used to provide additional meat and led to the progressive extermination of wild animals, which were pushed out of the areas used for agriculture. The fewer hunting opportunities there were, the more the practice of hunting became a privilege of the upper classes.

The situation was different with fishing, which was the main source of animal proteins for the broad sections of the population. It was practiced as river, pond and sea fishing, using hooks, spears, nets, cast nets and fish traps. The fishermen had to pay their dues in fish, which were brought to market and sold via state traders. The fish was dried, salted and also sold fresh.

A special form of ancient oriental agriculture is nomadism, which is based on herd animal husbandry. It developed in several stages, and its various forms also have different roots. The oldest form is the original semi-nomadism with grain harvesting or seasonal cultivation and the keeping of sheep and goats as well as a few donkeys and dogs. This semi-nomadism persisted until modern times in Africa and the Near East in the peripheral zones of the cultivation areas. The tribes practising it usually tended to settle down when they could.

[373] Cattle nomadism, which was often associated with seasonal cultivation, resembles it in many ways. It was particularly widespread in the Sahara region - before its devastation - and in East Africa's steppe zone. It was replaced in Arabia at the end of the 2nd millennium BC by dromedary nomadism, which also spread to North Africa in the course of the 1st millennium BC. Cultivation disappeared almost completely. The necessary plant products were usually bartered. By contrast, Eurasian horse nomadism was derived from agriculture and took over the steppes of Central Asia, which had been populated by farmers until the early 1st millennium BCE, and led to the regions of an itinerant pastoral economy with

horse, sheep and camel. Their origins in the eastern steppes date back to the 2nd millennium BC. u. Z. and seem to have been triggered by climatic fluctuations.

Both dromedary-peddling and horse nomadism were highly specialized adaptations of food production to natural conditions, but they were not suitable for further development. Their overcoming and higher development was linked to the transition to agriculture. As a rule, the nomads were destructive, as they were competitors of the farmers. The nomad is mostly dependent on the agricultural and craft production of the farming areas, the farmer does not need the nomad.

Literature:

1 *Mc. Adams, R. C./Nissen, H. J.*: The Uruk-countryside. London/Chicago 1972; 2. *Bobek, H.* in: Geographische Studien. Vienna 1951, p. 9 ff.; 3. *Brabyn, H.* in: Unesco-Kurier 1975 (16) H. 4; 4. *Brentjes, B.*: Von Schanidar bis Akkad. Leipzig 1968; 5. *Butzer, K. W.*: Environment and Archaeology. Chicago 1964; 6. *Ders.*: Studien zum vor- und frühgeschichtlichen Landschaftswandel der Sahara. Vol. 3, Wiesbaden 1959; 7. *Caton-Thompson, G./Gardner, E. W.* in: The Geographical Journal 1932 (80); 8. *Dawlat, S.* in: Annales de la Faculté des Lettres 1953 (2); 9. *Desmond Clark, J.*: The Prehistory of Africa. London 1970; 10. *Fish, F.* in: Bulletin of the John Rylands Library 1935 (19); 11 *Forbes, R. J.*: Studies in Ancient Technology. Vol. 2 ff., Leiden 1964 ff.; 12. *Gelb, I. J.* in: Arbeiten des 25. Internationalen Orientalistenkongresses. Vol. 1, Moscow 1962; 13. *Hinz, W.*: Das Reich Elam. Stuttgart 1969; 14. *Holt, F./Flannery, K. V./Neely, J. A.*: Prehistory and Human Ecology of the Deh Luran Plain. Ann Arbor 1969; 15. *Johnson, G. A.*: Local exchange and early state development in Southwestern Iran. Ann Arbor 1973; 16. *Leemans, W. F.*: The Old Babylonian Merchant, his Business and his Social Position. Leiden 1950; 17. *Mellaart, J.*: Çatal Hüyük, a neolithic town in Anatolia. London 1967; 18. *Nützel, W.* in: Sumer 1975 (31); 19. *Oates, J.* in: Iraq 1969 (31); 20. *Ron, Z.* in: Israel Exploration Journal 1966 (16), p. 33 ff.; 21. *Troll, C.* in: Mitteilungen der Österreichischen Geographischen Gesellschaft 1963 (105) H. 3, p. 313 ff.; 22. *Ucko, P. J./Dimbley, G. W.*: The Domestication and Exploitation of Plants and Animals. London 1969; 23. *Walters, S. S. D.*: Water from Larsa. New Haven/London 1970; 24. *Wirth, E.*: Agrargeographie des Irak. Hamburg 1962.

Burchard Brentjes [374]

2.2.10. The state as an economic factor

The state first emerged in the Ancient Near East between the 4th and the beginning of the 3rd millennium BCE as an organ of power of the ruling class that became necessary with the overcoming of the gentile society. It is a "power apparently standing above society" that has become necessary to "dampen" conflicts arising from the irreconcilable contradictions of a society divided into classes [MEW 21: 165]. Under the underdeveloped material conditions of early ancient Oriental class society, a central, unifying unit was necessary to manage economic tasks. These economic tasks were different, and the forms of state that emerged were correspondingly different. However, wherever very early states were formed, the economic motor was the need to mobilize the entire population for public service work. On the basis of the various self-sufficient village communities, it was no longer possible to expand the agricultural economy based on rain-fed agriculture as a prerequisite for human nutrition. The necessary transition to irrigation and drainage farming in the large river valleys therefore required the village communities to be united into administrative units. In Mesopotamia, this led to the earliest formation of states known to us in the form of city-states with temple economies as their economic centers [1: 30 ff]. It was not until the end of the 3rd millennium BCE that they were overtaken by large empires, such as the kingdom of Akkad under King Sargon 1. In Egypt, on the other hand, the emergence of a large empire was necessary very early on due to the different geographical environment, so that our sources say nothing more about a possible period of city-states. Instead, the state had to be formed as a center with a residence that ruled over a large number of villages in order to enable the society to exist. Many smaller residences were the seats of local administrators [1: 29].

Due to the extremely difficult source material, the emergence of the Indian and Chinese states is still very controversial. The early states in the Indus region have been described as an "Indian variant of the ancient Oriental state" and dated to the 3rd millennium [19: 73]. In China, the state was formed along the middle and lower reaches of the Huang He and its tributaries [21: 61]. In general, it can be said that the socially necessary centralization of large contiguous areas under the same geographical conditions forced the formation of large empires. Regional differences in the conditions for irrigation and drainage are reflected in the different times of transition from city states to centralized empires. Everywhere, state power became the largest landowner and thus the leader of all public life. This tendency led to the ruler's fictitious claim to supreme ownership of all land and to the fact that the supreme representative of state power also became the representative of the supreme deity. Private ownership of land could only develop partially and gradually, primarily in the hands of the ruler, the despot, and a class of officials dependent on him.

Where the function of monitoring and managing production was not socially necessary, i.e. where irrigation farming could not be carried out, the development of the state was delayed or took a different course. In northern Mesopotamia, for example, similar to Syria or Palestine, it apparently took place in the tribe [1: 31 f.]. For Mesopotamia, the rivers Euphrates and Tigris were of primary importance. This resulted, as for Egypt, in the necessity of a large-scale and developed irrigation and drainage system, the maintenance of which was the first duty of the central authority [24: 58]. In Sumer, the respective city goddess was considered the supreme landowner [1: 30]; here the form of the city-state had developed, which proved to be extraordinarily favourable for the organization of irrigation work in smaller territories. In addition, it coordinated direct production, both agricultural and artisanal, as well as the distribution of material goods. While the role of the "summarizing unit" was originally exercised by the temple [14: 51], the palace economy came to the fore in the course of later development due to the increase in power of the priestly prince. Thus, in addition to the temple, a further self-sufficient economic unit was established, which, however, functioned within this city-state system and already showed a tendency towards private property [6: 190]. For Lugalanda of Lagash and his wife we have

z. For example, 227 ha of land have been documented. In the time of the Akkad rulers (end of the 3rd millennium), the palace came to the fore; the king intervened decisively in the affairs of the city-states through an apparatus of officials, in which local organizational principles were still at work. It was above all the royal land on which the palace economy was based [7: 19]. The obelisk of Maništusu is clear evidence of the acquisition of royal land at the expense of the land ownership of the village communities. It shows the disintegration of the latter form of ownership and the enrichment of the palace economy [20: 6] [16: 107]. An important field of activity for the state authorities was long-distance trade to the centers of the Mediterranean and Anatolia in the north and the coast of the Persian Gulf in the south. The end of despotism on Near Eastern soil was associated with the rule of the 3rd Dynasty of Ur, which united large parts of Mesopotamia into one state. The tendencies towards private property were restricted here, and the state sector became predominant [5: 250] [7: 18]. Long-distance trade was a prerogative of the state; wood, stone and copper were imported. The enormous expansion of the irrigation network increased the area under cultivation; the entire population was obliged to work. This changed in the Old Babylonian Empire, under the dynasty whose most important representative was Hammurapi (1792-1750). Small-scale peasant producers, who farmed their land with the help of hired labor, set the tone here [25: 161].

The role of the central authority was expressed in the control of the entire economy, including prices, weights and measures. The royal land was now largely leased out or handed over for usufruct in return for services [23: Codex Hammurapi § 26 ff, 36 ff]. The levies paid by the tax tenants now became part of the permanent state revenue. In trade, too, which was largely a state monopoly, there were signs of a trend towards the independence of the trade commissioners

[15: 113]. However, the development of private ownership of land was limited, as the central management of the state remained necessary for the ancient oriental economic system.

From the 2nd millennium onwards, one state foundation gained importance from Asia Minor: the Hittite Empire. Conquests, especially in Mesopotamia and later in Syria, brought many tributes and became an early source of income for the kings [9: 124 f.], who relied on the possession of large estates. Some of the temples served as administrative centers. In addition to the ruler, his relatives and confidants also owned large economic units. The Hittite land donation charters show that the king owned land on which the population had to provide services [18: 372] [9: 110]. In addition, taxes had to be paid to the royal house [8: 109]. The Hittite Empire is known for its monopoly in the pre[376]processing of iron, which at that time was used exclusively for the production of luxury goods.

In the 1st millennium BCE, the Middle East (Assyria, Babylonia) was largely characterized by the emergence of large-scale private land ownership, whereby small producers were severely suppressed. New arable land was reclaimed for the Assyrian kingdom, which was cultivated by those deported there. Tribute payments from conquered peoples remained important for the state. To improve the economic development of their empire, the Assyrians formed provinces whose governors exercised constant control and collected tribute. The interests of the state were also served by an unfree, economically dependent population [25: 183 ff.]. In the Neo-Babylonian Empire, private ownership of land increased even further, as did the private share of trade [4: 77]. The royal power had completely seized control of the temple property and used the system of tax tenants to manage it. Sources of income for the state budget were state-owned land, general taxes, participation in long-distance trade, tribute and booty; however, the decisive importance of the state no longer lay in its economic function, but only in its political-military function. In Elam, in addition to the separately existing temple economy and forms of private enterprise (i.e. private cultivation of the land with all the usual types of business transactions: Borrowing, mortgaging, selling - buying, leasing [11: 272 ff.]), the state economy, which was divided into agriculture and crafts [11: 218 ff.], also dominated. The king disposed of the land. It was endowed with special rights; when it was taken over, the duties associated with it were also transferred to the person concerned. The owners of such landed estates enjoyed partial tax exemption, with a fixed tax system guaranteeing state revenue. State land ownership was divided into two categories: the royal land (*eqel ekallim*) and the food fields (*eqlēti šà kurummati*); both were granted to officials in the royal service [12: 63 f.]. In its workshops and fields, the royal economy employed a considerable number of dependents, semi-free men and slaves, so-called sons of the house, who often also had to perform military service [12: 68].

Syria and Phoenicia did not form their own empires due to their geographical location. In Phoenicia, city-states were formed on the coast of the Mediterranean. Marx called the Phoenicians a trading people par excellence [MEW 23: 143], and the sources also confirm this picture [17: 119]. They owed their prosperity largely to transit and overseas trade, which was primarily state-run. The king had the supreme right of disposal over the land, he himself ran a palace economy; significant land lots were given to officials and soldiers for use. In Ugarit, for example, various categories of dependents can be identified who had a specific relationship with the king. These included relatives of the king as well as craftsmen, farmers and slaves [17: 118 ff.]. However, the situation of the king's military servants, who were equipped with weapons etc. made by royal craftsmen at state expense, is also revealing [10: 128 ff.]. This clearly shows the dominant role of the state in public life. Land could be sold within the community, which led to the development of private property. What was more important was that the king, as the supreme merchant, had the decisive role, so that he concentrated all positions of power in the state in his hands.

The Nile with its annual floods, which ensured the fertility of the soil, was of great importance for the development of the state in Egypt [13: 19 ff.]. Thus

the construction of irrigation and drainage channels was a social necessity. However, if it was to fulfill its purpose, this could only be done on a large scale. In Egypt, the state intervened very early in the economic organization: although the village communities owned the land, the basis for the stability of yields, namely irrigation, was already in the hands of the state [13: 24]. The next step in this very early period (1st half of the 3rd century) was connected with the foundation of the domain villages - royal landed property that was directly subordinate to the ruler and administered by his officials; these officials were in turn bound to the king. The despotic pharaonic state thus emerged. Harvest yields were stored centrally and distributed in the same way; foreign trade was regarded and managed as a state monopoly. The pharaoh had complete political and economic power - the pyramid buildings of the Old Kingdom are an expression of this [25: 196 f.]. Towards the end of this period, there was an increasing weakening of central power in favor of the priesthood and higher officials, who tried to treat the land assigned to them as property.

In the Middle Kingdom (1991-1650), too, the land was predominantly cultivated within the framework of large state farms, but other forms of economy had already become established. They were closely linked to the emergence of an internal market; products were no longer distributed only from the state storehouses [22: 41, 46 ff], but the population could also be supplied by means of exchange. The pharaohs also stepped up their efforts to use extra-economic coercion to force their subjects to perform major social tasks (Amenemhet I was particularly outstanding in this respect). This revealed the gaping contradiction between the demands of the central power and the small owners, even the large ones were not spared. One of the great achievements of the Egyptian centralized state power in the field of economy and the development of new land was the reclamation of the Fayum Oasis, which considerably expanded the contingent of cultivable land [13: 122 ff]. In order to guarantee that the officials fulfilled their duties, an enormous control apparatus was required, which naturally placed a heavy burden on the state land fund. The rule of the Hyksos, during which the tried and tested system of maintaining the irrigation systems was neglected, shows how unfavorable an interruption in the continuity of state economic management was. This led to a decided deterioration in living conditions.

In the New Kingdom (1500-1000), the state then largely forfeited its leading position in the economy and was only responsible for very specific areas: the supervision and maintenance of the irrigation systems had become almost the only obligation here. He now found his social justification solely in his tasks of holding down the masses and organizing expansion for the purpose of conquering new territories [25: 212]. A large part of the population paid a fixed tax to the state as owners of parcels of land, in addition to revenues from the Nubian gold mines and tribute payments from foreign peoples.

From ancient India, whose history is divided into several stages, we have a great deal of archaeological evidence that informs us about the economy of the state. The states of the Indus civilizations, Harappa and Mohenjo Daro (it is not clear whether they were two states at all), are documented by rich finds [2: 87 ff]. They flourished in the period 2300-2000 BCE. The [378] finds provide evidence of a differentiation of wealth. A citadel was uncovered in Mohenjo Daro, as well as large granaries, which suggest a developed state economy, but could in any case be the prerequisite for it. The existence of freemen and dependents can also be assumed [2: 92]. Trade was important, as evidenced by numerous excavations (among other things, lapis lazuli, jadeite, copper and handicraft products were traded). The trade routes led to the Near East, and there is also evidence of them in southern Central Asia. In this context, the location on the river banks had an extremely favorable effect [25: 236]. The fact that these cities may have had a canalization system as well as

The fact that there was a centrally controlled water supply speaks in favour of a centralized economy; this also applies to the so-called giant covered markets, although there are still major differences of opinion in the literature.

In the Iron Age states of northern India, which emerged after the immigration and settlement of the Āryas and their mixing with the pre-Aryan population (around 1000-550 BCE [19: 75 ff.]), the state was entitled to fixed taxes. They were justified by the fact that the state had taken over the protection of the population. The most important of these was the village tax, the amount of which was

1/6 of the harvest. This was the Ganges society, which was still in the process of development and which eventually developed despotism as a form of government [19: 76]. The basis of this state was the village community of the Vṛārya, within which the decisive production processes on which this society was based took place. It is important to note that the ruling, state-forming class here was not, as in other regions of the ancient Near East, the organizer of the irrigation systems; rather, the transition from Ārya army leader to despot is characteristic [19: 77]. The contrast between town and village, spiritual and physical labor also developed. Priests and kings were responsible for management, while farmers, shepherds, craftsmen and traders were responsible for production. The beginnings of the official state ideology can be seen in the Brahmin texts: According to these, there was a fixed division of the population into "teaching, military and two nourishing classes" [19: 77]. The king ruled through officials, which now also included the village schoolmaster; however, there was not yet a pronounced bureaucratic apparatus at this time. It only developed in the Magadha state, which had a fully developed despotism [19: 78]. Here the remnants of a still military-democratic society disappeared, and the fully administered state took its place. In addition to the land of the village community, there were certain lands, including uncultivated fields, forests and fallow land, which were at the king's disposal; from this land fund he granted parts as donations or settlements. There was also the royal land, which belonged entirely to the ruler. There was also individual ownership of land, although the state set limits on this. It should be noted, however, that ownership and possession are not clearly distinguished in the ancient Indian sources. Since there was a sufficient amount of land, clear legal provisions for the protection of private ownership or possession of land were not absolutely necessary. The precise delimitation of rights was far more concerned with the usufruct of the yield of the land, which was usually divided into a whole hierarchy of usufructuaries.

The oldest evidence of state economic management in China comes from the Xia Dynasty (3rd/2nd millennium), which came to power during a dangerous flood because of its great achievements in river regulation. This work required an effective organization that must have involved the entire population. In the Shang period (16th-11th century BCE), the village communities had to provide services for [379] the nobility, who exploited them collectively and lived in great splendor themselves [21: 60 ff]. Their need for luxury thus benefited from the bronze products that testified to their great artistic mastery. The Zhou Empire (11th century to 256 BCE) already had a king who owned land and peasants as his property. The peasants had to pay taxes to the ruler and were obliged to provide services; as a member of the village community, the peasant was the owner of the land, but was enslaved by obligations. The "Shijing" states that the king had large granaries at his disposal, but that he could also collect the grain directly from the fields. The establishment of new villages, which were no longer village communities but rather contributed to their destruction and formed the basis for the later centralization of the state [25: 253], was of great importance. Small property began to assert itself; in the Zhanguo period (480-221 BCE) it achieved its full breakthrough, the rulers now had a strong administrative apparatus and controlled production, which they dominated through extra-economic coercion. The unification of China by the Qin and Han dynasties (around 220) brought radical reforms to the state [25: 448 ff.], in the wake of which the remnants of village society disappeared and absolute state power emerged. Standardized measurements, weights, money, wagon lane width and writing were introduced, and an extensive network of

The ruler built state roads; canals and irrigation systems were generously renovated to promote transportation and agriculture. The ruler transformed the once independent nobility into a court nobility and issued a dogma of infallibility that supported his power in an absolute sense. The vigorous practice of state monopolies (salt, iron) considerably improved the state finances. The most important source of income remained the taxes on small peasant producers.

Literature:

- 1 *Brentjes, B.* in: *Beitr. Entstehung des Staates*, p. 27 ff.; 2 *Bongard-Levin, G. M./Il'in, G. F.*: *Drevn- jaja Indija*. Moscow 1969; 3. *Breadsted, J. H.*: *Geschichte Ägyptens*. Berlin 1911; 4. *Dandamajev, M. A.* in: *Beitr. soz. Struktur*, p. 69 ff.; 5. *D'jakonov, I. M.* in: *Obščestvennyj i gosudarstvennyj stroj drevnego Dvurec'ja*. Moscow 1959; 6th ed. in: *Ancient Mesopotamia*. Moscow 1969, p. 173 ff.; 7. *Ders.* in: *Beitr. soz. Struktur*, p. 15 ff.; 8. *Freydank, H.* in: *Beitr. soz. Struktur*, p. 103 ff.; 9. *Gurney, O. R.*: *The Hittites*. Dresden 1969; 10. *Heltzer, M. L.* in: *Beitr. soz. Struktur*, p. 125 ff.; 11. *Jusifiv, J. B.*: *Elam, social'no-ekonomičeskaja istorija*. Moscow 1968; 12. *Ders.* in: *Beitr. soz. Struktur*, p. 61 ff.; 13. *Kees, H.*: *Das alte Ägypten*. Berlin 1955; 14. *Klengel, H.* in: *Beitr. Entstehung des Staates*, p. 36 ff.; 15. *Leemans, W. F.*: *The Old-Babylonian Merchant*. Leiden 1950; 16. *Mendelssohn, I.*: *Slavery in the Ancient Near East*. New York 1949; 17. *Oelsner, J.* in: *Beitr. soz. Struktur*, p. 117; 18. *Otten, H.* in: *Kulturgeschichte des Alten Orient*. Stuttgart 1961, p. 313 ff.; 19. *Ruben, W.* in: *Beitr. Entstehung des Staates*, p. 73 ff.; 20. *Scheu, V.*: *Textes élamites-sémitiques*. Paris 1900; 21. *Thilo, Th.* in: *Beitr. Entstehung des Staates*, p. 56 ff.; 22. *Das Buch Genesis* in: *Die Bibel*. Leipzig 1969, p. 12 ff; 23 *Codex Hammurabi* in: *Pritchard, J. B.*: *The Ancient Near East*. Princeton 1958, p. 138 ff.; 24. *Kulturgeschichte des Alten Orient*. Stuttgart 1961; 25. *Weltgeschichte bis zur Herausbildung des Feudalismus*. Berlin 1977.

Bernd Funck [380]

2.2.11. City

The emergence of urban centers in the Ancient Near East was a process that took place over different periods of time in different areas as part of the "urban revolution" (in Mesopotamia, for example, 5th-3rd millennia BCE). The original settlement form of the village community was based on the common ownership of all community members of the means of production (land, working objects). Initially the sole economic and administrative unit, it later became an obstacle to the further development of the productive forces, which was driven in particular by the independence of the crafts in the temple economies (second great social division of labor). Increasing specialization promoted exchange, whereby, for example, raw materials that were lacking in Mesopotamia were exchanged for finished handicraft products. This created the need for markets within the community, which in turn influenced the sale of the surplus product. It became increasingly difficult for the individual village community to adapt to the changed production conditions. Irrigation farming, their economic basis, increased steadily and individual communities were no longer able to cope. At the same time, the gentile principle was destroyed, as new forms of settlement emerged - several village communities joined together to form an economic and cultural center grouped around the temple. Such units became towns with an agrarian structure. They emerged where economic and administrative centralization was required and developed into city-states (Mesopotamia) or administrative and cult centers for the centralized economic management of the state (Egypt). In addition, there were administrative associations against military raids. The large cities on the east coast of the Mediterranean, which lived from trade and owed their development to their favorable geographical location, form a special group. As a result of the different economic and geographical conditions in the ancient Near East, the development and function of the cities varied greatly. However, they are always a reflection of the mode of production from which they emerged. This is characterized by the unity of agriculture, animal husbandry and crafts, which is why town and country form a

This was characterized by the prevailing ownership structure, i.e. the individual's ownership of the land, which was not his property. The real owner was the community, so ownership only existed as community ownership of the land [MGr 380]. In this sense, one could speak of the common property of the ancient oriental cities. The following overview is intended to take account of the different urban developments within the framework of a social formation.

Near East: The city played an important role in the formation of early class society [18: 22] [11: 126 ff.] [19: 144]. The first settlements of an urban type can be traced back to the 5th-3rd millennium; Eridu, Sippar, Shuruppak, Kish, Uruk are among them, and their importance was also great later on. A prime example of early urban culture was ancient Uruk: around 3000-2800 BCE, the two sacred precincts of the god Anu and the goddess Innin already existed, around which the community was grouped [13: 59 ff.] [7: 78]. The basic economic type was the temple economy, which at the same time determined the urban forms of life and organization [18: 47] [4]. The texts from Shuruppak and Lagash allow a reconstruction of the socio-economic conditions. The focal point was the temple of the city god, who was considered to be the chief owner of the land. The community was headed by a priest-prince who directed the collective work through officials and combined judicial, military and cultic functions [381]. The temple land was divided into three categories: About a quarter was worked directly by the temple, another part went to the members of the community for use and a third category was the leased land. In addition, the temple employed specialized workers who were paid by the temple. The maintenance of the irrigation systems, the cult buildings and military service were obligatory for everyone [18: 47 ff.] [19: 145]. The supreme position of the priest-prince displaced these early forms of Sumerian urban culture in favor of a palace economy. The first tendencies towards a private economy emerged, which were never fully developed [5: 47, 51, 79]. Under the Akkad dynasty, the palace economy increased [19: 154], the prince-priest became the governor of the central power. The city lost its independence, the royal land dominated, and the land of the village communities existed alongside it [12: 106] [10]. Under the rulers of the empire of the Third Dynasty of Ur, a strong centralization took place, the temple economy was replaced by the state economy; the city was an economic and administrative unit, headed by officials appointed by the despot [4: 249] [19: 158]; however, the traditional urban forms of life were preserved. In the following period, city-states (Isin, Larsa) once again prevailed, from which the impetus for the emergence of a new Mesopotamian territorial state then emanated. It was founded by the rulers of Babylon, whose most outstanding representative, Hammurapi (1792-1750), was able to defeat Larsa, Assur, Man and others as his most powerful rivals. Assur had long had trading settlements near urban settlements in Asia Minor (e.g. Kanu) with their own jurisdiction [7: 170 ff.]; it was itself an important trading center and Man was subject to its influence along with other cities. Its importance lay above all in its role as a trading metropolis, forming an important base for maritime and caravans trade from the Mediterranean to the Persian Gulf (mainly tin). The huge palace complex - which housed the city's most important public institutions - was the center of urban and thus social life. The role of the king as the supreme organizer of all undertakings is remarkable [15: 102 f.].

In the Babylonian empire of Hammurapi, the territorial state curtailed the autonomy of the cities in favour of extensive centralization, partly because the king now appointed the rulers of the cities. In addition to the palace and temple economy, the private sector became increasingly important [9: 166] [14: 138 ff.]. The population as a whole was integrated into the economy through a strict system of land allocations and service obligations [9: 113] [14: 145 f.]. State-subsidized trade meant that crafts flourished in the cities [9: 136]. Trade was primarily conducted via the cities [7: 192].

Significant changes did not take place in the Mesopotamian cities until the first half of the 1st millennium BCE. In the Neo-Assyrian Empire, the cities gained an independent position vis-à-vis the kingship; this is where the freemen who were not burdened with taxes and services were now concentrated [19: 184]. The Neo-Babylonian cities also underwent changes: Many were

The Egibi and Murašu had their branches in many cities of the country, large-scale land ownership threatened to destroy the existence of society, but the city dwellers still remained citizens and farmers, while the city retained the character of a citizen-temple community [17: 484]. The port cities on the Syrian Mediterranean coast had a different structure and development, and their trading character had a decisive influence on their way of life and organization [18: 469]. They were always equipped with a fortified harbor, so trade and shipping were [382] developed. What was new was the ruling class of rich merchants, whose trading activities were not subject to any state regulations [19: 174]. For the 2nd millennium BCE, the evidence from Ugarit offers a vivid picture of these cities. It was the intersection of many caravan routes from the Mediterranean to the Persian Gulf and an important transshipment point for maritime trade. The merchants acted either as agents of the king, who supplied them with everything they needed, or as private traders who paid a tax to the palace. The situation was similar in other economic sectors (crafts) - the king's supremacy was unmistakable. According to the census lists of the cities in question, we can distinguish between the following population strata: the chariot fighters as the king's supporters, a broad middle class of small landowners, mostly farmers and craftsmen; the lowest level was formed by a rural population free of land. Various professions were united in corporations - such as launderers, weavers, tanners, blacksmiths, ointment makers, as well as merchants and long-distance traders, whose chairman was the king as supreme merchant [15: 471]. A wealth census was decisive in the appointment of offices, and there was probably also a people's assembly. At the beginning of the 1st millennium BCE, Phoenician trading cities extended their maritime trade to the entire Mediterranean region, in particular Byblos, Sidon and Tyre. The latter became the starting point of Phoenician colonization (establishment of ports, acquisition of markets and sources of raw materials). The most important colony was Carthage (in present-day Tunisia). The production of purple fabrics [15: 223] and glass as well as the metal trade were important.

Egypt: The basic economic and social cell of the early period (early 3rd millennium BC) was the village community, in which a village council held judicial, administrative and economic power. The natural conditions of production due to irrigated soil cultivation made very special demands here: Large irrigation systems had to be created immediately; this could only be accomplished by utilizing a large human potential, which led to the amalgamation of various communities, resulting in the preliminary forms of the later Gaue. The dominant form of settlement became the domain village, which was administered by royal officials and was thus directly accountable to the ruler. This form finally existed in the Old Kingdom (2665- 2480), where Egyptian kingship had fully developed with the pharaoh at its head [2: 72 ff.] and a highly centralized economy was operated [19: 198 ff.]. Urban development in Egypt took place under special conditions. Here, the city was not an agrarian economic center, but always the center of administration and cult [8: 80 ff.], and thus corresponded to the economic necessities of society; the cities had developed from the residences and cult centers of the pre-state "primal regions". In addition to the administrative apparatus and the dignitaries, the influence of the priesthood was very strong here, as the temples freed themselves early on from pharaonic domination and were almost independent. Thus the ancient cities of Memphis, Heliopolis, Abydos and Herakleopolis were characterized by the priesthood, which actively intervened in economic life [8: 89 ff., 120 f., 129 ff.]. As a political foundation from the earliest period (cf. its role in the unification of the empire), Memphis was also always regarded as the guardian of tradition, e.g. the establishment of the cult of the dead (18th Dynasty). Even these chapels were managed, they were subject to the ptahtempel [8: 97]. The face of the city changed considerably in the Middle Kingdom. New social groups such as craftsmen, merchants and small property owners formed an urban middle class; they operated independently, produced for a "market" and paid taxes to the state. Craftsmen with certain qualifications joined together in associations [5]. Many cities were built by pharaohs [383] (namely Amenemhet I), probably including the delta fortresses of Tanis and Sile, which served to secure the border; Ramses II developed Tanis into a city rich in temples [8]:

104 ff]. Economically important was the development of the Fayum, where the city of Krokodilopolis was built, which, with its cult of Suchos associated with the royal cult, demonstrates a combination of economy and cult typical of Egypt [8: 123 ff]. In the New Kingdom (1527-1080 BCE), the city was an integral part of the state and remained the royal administrative center. The monumental buildings of the pharaohs of this period document not only the power of royal rule, but also the prosperity of the cities. Their construction had a favorable effect on the development of craftsmanship [6: 283 ff.], including the capital Thebes with its temples of Karnak and Luxor [8: 142]. Up to 150 craftsmen often worked in the workshops, which were frequently the property of the temple; its representatives had attained dominant positions in the state. But craftsmen also worked at court and in the cities to meet the needs of the state. Furthermore, large granaries for storing grain and other agricultural products in the cities demonstrate their centralizing role in the ancient Egyptian economic structure. Their existence is all the more astonishing as there was a broad stratum of individually producing farmers on plots of land in the New Kingdom who paid fixed taxes; they worked for a market. The store economy was obviously geared towards producers who were paid in kind for their work. The temple economy also produced for the exchange of goods; grain took on the role of an equivalent.

India: The Indus Valley region was of great importance for the development of cities (irrigation farming as the basis of social production). According to current research, the cause of the sudden development of urban culture in Indus Valley society cannot yet be explained [19: 236]; written evidence is still inaccessible to us. Trade with West and Central Asia may have acted as a catalyst. The fertile Indus Valley usually ensured good harvests (wheat, barley, peas, pumpkin, cotton and dates). The oldest urban cultures in India flourished as early as the 3rd century. Two important centers have been uncovered here: Harappa and Mohenjo Daro [1: 87 ff.]. The highly developed civilization of both cities can be demonstrated by the example of Mohenjo Daro. Covering an area of 260 ha, it has undergone several periods of construction over the centuries. The town is criss-crossed by many straight streets with houses made of burnt bricks. Everything - the evenly running streets and the rounded corners of the houses - points to a deliberate and purposeful urban layout. The houses, some 2-3 storeys high, were imposing. However, there were also smaller and very small houses, which can certainly be seen as evidence of social differences in these towns [1: 96 ff.]. The well-thought-out layout of the sewage system and water pipes is remarkable. There were large buildings of social importance: a citadel, the so-called Great Bath (probably to be interpreted as a prefiguration of the later temple pond), large granaries and fortifications. We are obviously dealing with an early class society that was centrally structured (e.g. the large granaries as an indication of such an economy based on levies from the villages). The many finds of tools show a highly developed craft: sickles, hatchets, knives, files, weapons of all kinds and small figures were made of copper and bronze. Casting, forging, pottery with the help of the potter's wheel, brick-making, weaving, glass-making and the production of beads for jewelry were important branches of production. The position of shipbuilding is not clearly established. The seal finds with pictorial writing and depictions of humans, plants and animals are important. Special **[384]** mention should be made of trade with the Near Eastern cities, of which finds from the Indus culture in Susa, Kish, Ur, Lagash, Tell Asmar, Chamar, Tepe Gawra and even Troy tell us [16: 143 ff.]. A well-developed system of port sites, which ships could call at en route, lay on this trade route across the Persian Gulf (the port city of Lothal played a role here).

China: China's oldest history is linked to the Shang Empire, which we date back to the 16th-11th centuries.

BCE [19: 249]. This epoch can only be determined archaeologically. The remains of a town in the province of Henan have provided us with information that a royal palace, a temple and craft workshops existed here. The rows of houses are divided into well-ordered city quarters. The tombs, including 4 royal tombs, also indicate a pronounced social differentiation: one can clearly distinguish between the richly furnished tombs of the aristocrats, the

The more modest resting places of the simpler "civil servants" and those of the poorer classes can be distinguished. The most important sources, however, are the ominatexts written on bone and tortoiseshell, from which important data on the economic history of the time can be derived [19: 249]. Bronze craftsmanship was highly developed (mainly ritual vessels were made), but other cult and luxury objects were also produced for the needs of the ruling class. These included jewelry made of bone and jade.

In the ominatexts mentioned above, there is a hieroglyph depicting a city gate and a tower, which is interpreted as a "residential city"; the emergence of the first fortified cities apparently took place at this time. Nevertheless, in the history of the following empires, that of the Zhou, the Chunqui, the Quin and the Han, it was not the city but above all the village community that formed the social basis [19: 250 ff.]. It was only in the Han empire that we repeatedly hear of incidents that demonstrate the process of decomposition within the village community [19: 445 ff.]. The state tried to put a stop to this development in order to preserve the village community as a tax and revenue unit for itself. Not uninvolved in this decline was a development that made itself felt from around the 6th/5th century BCE and resulted in the expansion of urban settlements. While the older towns housed a maximum of 3,000 families, a good 10,000 families now lived in one town. In terms of their character, we are mainly looking at trading towns, which largely - with the exception of the residential towns - developed along the major trade routes. These developed as early as the first half of the 1st millennium BCE. Closely linked to the upswing in trade and the urban way of life was the introduction of metal money [19: 446]. In ancient China, however, urban development did not lead to an autonomous city, but remained merely a component of the centrally ruled empire, a place characterized by larger settlements, trade and commerce, which, under the rule of The "imperial" officials used them as their official residence. In addition, such cities had become important sources of income for the rulers, who imposed all kinds of taxes and customs duties on them.

Literature:

1 *Bongard-Levin, G. M./Il'in, G. F.*: Drevnjaja Indija. Moscow 1969; 2. *Breasted, J. H.*: Geschichte Ägyptens. Berlin 1911; 3. *Deimel, A.*: Die sumerische Tempelwirtschaft zur Zeit Urukaginas und seiner Vorgänger. Rome 1931; 4. *D'jakonov, I. M.*: Obščestvennyj i gosudarstvennyj stroj drevnego Dvureč'ja. Moscow 1959; 5. *Erman, A./Ranke, H.*: Ägypten und ägyptisches Leben im Altertum. Tübingen 1923; 6. *Hirmer, M./Otto, E.*: Ägyptische Kunst. Vol. 1-2, Munich 1971; 7. *Hrouda, B.*: Near East. [385] Vol. 1, Munich 1971; 8 *Kees, H.*: Das alte Ägypten. Berlin 1955; 9. *Klengel, H.*: Hammurapi von Babylon und seine Zeit. Berlin 1977; 10. *Kohler, J./Peiser, F. E.*: Aus dem babylonischen Rechtsleben. Vol. 1-4, Leipzig 1890-1898; 11. *Kraus, F. R.*: Vom mesopotamischen Menschen der altbabylonischen Zeit und seiner Welt. Amsterdam. London 1973; 12. *Mendelsohn, I.*: Slavery in the Ancient Near East. New York 1949; 13. *Moortgat, A.*: Die Entstehung der sumerischen Hochkultur. Leipzig 1945; 14. *Pritchard, J. B.*: The Ancient Near East. Princeton 1958; 15. *Schmökel, H.*: Geschichte des Alten Vorderasien. Leiden 1957; 16. *Ders.* in: FuF 1966 (40), p. 143 ff.; 17. *Weinberg, J.*, in: Acta Antiqua 1974 (XXII), p. 473 ff.; 18. *Kulturgeschichte des Alten Orient*. Stuttgart 1961; 19. *Weltgeschichte bis zur Herausbildung des Feudalismus*. Berlin 1977.

Bernd Funck

[386]

2.3. Ancient mode of production

2.3.1. General characterization of the ancient mode of production

The ancient mode of production comprises the material basis of the ancient social order, one of the "progressive epochs of the economic formation of society" [MEW 13: 9] [1]. The basis of this mode of production is the development of individual private property, initially in land, later also in other immobile means of production (workshops, mines, etc.). After the elimination of variants of the ancient Oriental class society (Cretan-Mycenaean, Etruscan and Italic), the starting point is the community of free peasants, who - in contrast to the ancient Oriental mode of production - can constitute themselves as individual landowners if there is no latent socially necessary work that can only be realized collectively (canal construction, irrigation, etc.). [5]

[6] The community occupies a territory on which it organizes itself according to aspects of defence, i.e. warfare. The residences are gradually concentrated in an urban center, the cultivable land then appears as an "accessory" to the city, presupposes the city. [MGr 380] The property of the individual is no longer primarily part of the direct communal property, but individual property secured by membership of the community, alongside which, however, communal (or state) property normally exists. The community does not so much form a common bond through blood, clan or similar ties, but primarily through the fact that only the member of the community can be a landowner, only the landowner can be a member of the community. Owner of the means of production, producer and appropriator of the product are essentially identical in this starting point. Surplus labor initially benefits the producer himself, and only through him does it benefit the community. This surplus labor also includes military service for the defense of the communal territory and for the purpose of plundering. [MGr 380]

This type of community first developed after the immigration of Greek tribes to the south of the Balkan Peninsula from the 10th century BCE. [4] It can be observed in central Italy from the 6th century BCE, not without Etruscan and Greek influence. However, it was only able to exist in this "ideal" form during a very short transitional period, firstly because the equal division of the land "already hindered the progress of the population" and created a landless section of the population [MGr 393], and secondly because de facto the division of the land was more differentiated than ever. The aristocratic tribal leaders and clan elders from the migration period secured and were awarded advantages in the form of larger and better shares of land, which laid the foundation for the different development of the landless family members. At the same time, the economic superiority of the old clan aristocracy also resulted in continued military leadership and, from this, the claim to political leadership.

[387] The resulting inequality among the members of the community, the emergence of (relative) large-scale land ownership as a contrast and contradiction to the parcel ownership of the majority, demanded the establishment of an instrument of power for the ruling class in the process of formation. The urban center, which in Greece often included an ancient Mycenaean castle (acropolis, with almost exclusively cultic significance), was transformed into the seat of legislative and executive powers, which were placed above the members of the community. The urban settlement and the surrounding land (chora) became the state territory, the polis.

This polis developed into the framework in which slavery as an essential factor within the relations of production and ancient democracy as an eminent form of state constitution would subsequently emerge.

Slavery as an ancient relation of production arose when the differentiation of ownership of the means of production reached a certain level. Slavery became necessary in land ownership when contiguous or scattered plots of land were united in one hand to such an extent that they could no longer be worked by one family [6] and the attempt to force one's own tribal or communal comrades into bonded labor or debt slavery had failed. The debt slavery of community members is actually the earliest

Form of slavery in production. However, it soon had to be abolished due to the resistance of those affected and the associated weakening of military potential (Greece 6th century BCE, Rome 3rd century BCE). The emergence of slavery as an ancient production relationship is thus dependent on a relatively developed state of the productive forces and a certain level of state development, which not only enables the oppression of the lower free classes, but also the necessary supervision of the individually owned slaves by the community as a whole. [4] It thus presupposes the city and a market.

The tendency towards productive slavery was thus inherent in the ancient form of private property, the individual ownership of the means of production (in contrast to the ancient oriental form), from the outset, but only very gradually established itself quantitatively as a formative relationship of exploitation. In Greece, this point in time was not before the 5th century BCE, in Rome not before the 2nd century BCE.

The establishment of slavery in production (domestic and luxury slavery are much older) goes hand in hand with the serious class struggles that were fought in the polis (in Greece as in Rome). While the opponents were initially the large and small owners of land and the small owners were concerned with preserving their independence and their ownership of the production conditions, separate classes of tradesmen with their own workshops and free property owners who had to earn their living through day labor and seasonal work soon emerged. The mass of the free population, however, always owned neither a plot of land nor a workshop. The extensive reproduction of this property made the introduction of mobile production slavery unavoidable. This is therefore a "necessary and consequent result" of individual private property, and thus arises "always secondary" to it. [MGr 395]

Historically, this means that the tendency towards slavery as a decisive production relationship within the ancient mode of production was present from the beginning (10th century BCE), but that production slavery as an essential factor in socio-economic relations did not exist before the 6th century BCE.

BCE and only in the 5th century BCE did it "seriously take possession of production". [MEW 23: 354, note 24] These stages of development are lawful and inevitable. "In order to be able to exploit a slave [388], a certain stage in production must already have been reached and a certain degree of inequality in distribution must have occurred," said Engels. "And for slave labor to become the dominant mode of production of an entire society, a far greater increase in production, trade and the accumulation of wealth is needed." [MEW 20: 149]

It is of course no coincidence that the highest development of slavery, ancient democracy and ancient culture in Greece coincided in the 5th/4th century BCE; in Rome, the same applies in principle from the 2nd century BCE to the 2nd century CE, even if democracy was never as pronounced there.

The class struggles in the polis mainly took place between the free classes. Against the ruling classes, the large landowners, who had originally emerged from the Gentile nobility, and the Ergasterian landowners, who became important in Greece from the 5th century BCE and in Rome from the end of the 2nd century BCE, stood the small landowners, the craftsmen and merchants who worked alone and the propertyless freemen in loose coalitions. [10] The goals of the oppressed free classes were not identical. The small farmers were primarily concerned with maintaining their right of ownership of their plots of land, while the large landowners exerted constant pressure to deprive the peasants of their share of the land through usury. For Greece, however, it must be emphasized that the difference between small and large property was quite small and that latifundia-like sizes did not develop due to the geographical conditions. Therefore, even in such developed centers as Athens, it was never possible to concentrate the land in the hands of a few. In the Roman Empire, such concentrations were constantly balanced out by constant conquests and colonization. The small peasantry therefore remained the quantitatively largest group of people and class throughout the entire existence of the ancient social formation and always exercised influence. [2]

The class struggle of small craftsmen and traders took place on other levels. (The profession of wholesaler, who lived from buying up goods and selling them on at a higher price, did not exist in antiquity, although such transactions did occur in some cases). This class, which played a major role in the decisions of the popular assemblies, fought for active civil rights within the polis from the time of its formation. These goals were largely achieved in the large Greek poleis and partially achieved in Rome. Important stages on this path, which is identical with the development of ancient democracy, were the enforcement of written laws (Draconus; Twelve Tables), the introduction of property classes for appointments to office (Solon; Appius Claudius), the replacement of clan organization with territorial organization (Cleisthenes), the establishment of the popular assembly as a decisive legislative institution (Ephialtes; Pericles; Hortensius).

In Greece in particular, colonization and tyranny became an important lever for this political victory of the lower classes. The great Greek colonization, which lasted from the 8th to the 6th century BCE and led to many polis being founded on the Black Sea coast, in Sicily and in Lower Italy (Magna Graecia) as well as in North Africa, is not only due to a relative overpopulation of the Aegean region, but must also be attributed to the particularly fierce class struggle in the mother cities at this time, which was also accompanied by power struggles among the ruling aristocratic clans. On the other hand, the colonies, which saw themselves as autonomous city-states - and indeed they were - were quicker to adopt democratic forms, as they did not have any strong gentile ties.

[389] An important prerequisite for the successful struggle for political rights was the movement that has gone down in history as the "early tyranny". The tyrants in the Greek poleis from the 7th century BCE onwards were predominantly (but not exclusively) representatives of aristocratic groups who were excluded from exercising real power as a result of power struggles within the ruling class. In their subjective drive for power, they were forced to rely on the oppressed classes (mainly the urban classes) and largely destroy the aristocratic state apparatus. In many poleis of the Aegean, the Black Sea and the Italic-Sicilian settlement areas, this succeeded to such an extent that the nobility at least had to make far-reaching concessions to the lower classes, on which the further development towards democracy could be based. The main beneficiaries of tyranny were the urban middle classes (craftsmen), on whom the tyrants relied and whom they also supported through state contracts.

In Rome, colonization took a different form, namely that of veteran settlements on conquered territory, which was regarded as state land (*ager publicus*). While the Greek colonies established themselves as autonomous states with their own civil rights and only more or less loose ties to the mother cities, the Roman veteran colonies always remained part of the Roman state, capable of securing Rome's rule over the conquered territories.

While the Greek polis as a state was never able to transcend the framework of a city-state and in the so-called Hellenistic epoch mainly declined to provincial cities within the framework of large empires of the ancient Oriental type or came under Roman rule [9 (1973)], the ancient mode of production in Rome survived the gradual transition from city-state to territorial state (up to world power) and the faster transition from republic to empire for a relatively long time. It was not until the 3rd century that the colonate was able to assert itself as the dominant mode of production over slavery, that the natural economy began to prevail over commodity-money relations, that urban development stagnated in favour of the large estates, especially the exempt territories, which were subject to no other administration than that of the landowner, that the state superstructure was transformed into a rule similar to oriental despotism, and that the cultural superstructure, especially religion, was "orientalized".

It should be noted that "serfdom and bondage are not a specifically medieval-feudal form", as Engels states with reference to Thessaly [MEW 35: 137]. In fact, relations of serfdom already existed in the ancient Near East, were even typical there, but also existed within the framework of the ancient mode of production. In Greece there are state systems, the so-called

Tribal states that did not develop the polis and mobile slavery at all, but remained with forms of dependency that ancient writers considered to be "between free and slave". These include, for example, the Helots in Sparta, the Foikees in Crete and the Penesten in Thessaly. However, such relationships also existed in the poleis based on slavery (e.g. the Hektemoroi in Attica, the Laoi and the Pedieis in Hellenistic cities). In Rome, clientele relationships (personal dependency relationships of freemen) actually never ceased to exist. Their transformation into land-based forms of dependence under the influence of Hellenistic Oriental and African models seems to have taken place smoothly as early as the 2nd century BCE. [2] [5] [6] [8] [9] [10]

Since the ancient mode of production presupposed the city, it provided an excellent basis for the development of crafts and the simple production of goods. [3] [8] **[390]** The residential center of the polis also became a center of exchange. As the craftsmen freed themselves from the limited needs of the village, the production of high-quality mass-produced goods developed in the polis. The craftsmen not only worked to the direct order of a customer, but also began to produce for an unknown market - primarily for long-distance trade. This promoted specialization in the craft sector enormously. In addition to specialization within a city, there were also territorial divisions of labour within the crafts sector (e.g. leather processing in Miletus, pottery in Corinth and Athens). This went hand in hand with the development of a merchant class, which, however, remained limited, as it was mainly the producers themselves - also in long-distance trade - who brought their goods to the consumers. Independent merchants remained service providers on behalf of the producers and rarely rose to the ranks of the wealthy classes.

In the crafts sector, slavery reached its peak when the workshops exceeded the size of the family business and began to take the form of ergasteries, i.e. businesses with further specialization within a branch of craft. This development reached its peak in Greece in the 5th and 4th centuries BCE, in Rome in the 1st century BCE and in the 1st century CE. The struggle of these urban craftsmen for equal rights with the large landowners was one of the most important driving forces behind the development of ancient society.

When slavery could no longer be developed as mass slavery after the great Sicilian slave wars and the Spartacus revolt, the urban economy began to stagnate - initially at a relatively high level - and with it crafts and trade. The transition to a predominantly natural economy then became clear in the 3rd century.

In summary, it can be said that general characteristics of the ancient mode of production can only be summarized within the framework of the dialectical contradictions of ascending and descending phases and a brief heyday of the ancient social formation. In recognition of all the reservations that can be raised against schematizations of historical processes, it is perhaps helpful to structure these characteristics once again in a comparative table:

Ascending phase (10th century - 6th century BCE Greece; 7th century - 3rd century BCE Rome):

Enforcement of individual private ownership of land, including wealth differentiation of owners, establishment of the territorially (according to martial aspects) structured city as the settlement and ruling center of the community. Transition to the state as an aristocratically governed republic. Introduction of mobile production slavery, initially in large-scale land ownership, then increasingly and predominantly in the crafts. Class struggles of the small farmers to maintain their independence. Class struggles of craftsmen and propertyless people for equal civil rights (passive and active). Archaic culture.

heyday (5th-4th century BCE Greece; 2nd-2nd century BCE Rome):

Differentiated land ownership within the framework of the polis; flourishing crafts and trade within the framework of simple commodity-money relations. Developed democracy on the basis of developed slavery in agriculture and, above all, crafts. Class struggles of the small farmers against the concentration of the land in a few hands, of the urban propertyless (thetes, proletarii) against their

Exploitation. Slave revolts. In Rome, transition to monarchy in order to stabilize the slavery order. Formation of new production relations in the bosom of the old order. Highest flowering of ancient culture.

[391] *Descending phase (3rd century - transition to feudalism):*

Further land concentration, emergence of exempt territories of land magnates. Establishment of the colonate as the quantitatively and qualitatively predominant mode of production in the countryside. Stagnation of the urban economy and decline of slavery in production. Uncoordinated uprisings among all oppressed classes, including the slaves and the invading or infiltrating "barbarian" peoples. Stagnation and eventual decline of ancient civilization.

Literature:

1 Dieter, H. in: EAZ 1970 (11), p. 79 ff; 2 Finley, M. I.: The Ancient Economy, London 1973; 3. Garlan, Y. in: La Pensée 1973, H. 10, p. 118 ff.; 4. Hahn, I. in: JWG 1971, T. II, p. 29 ff.; 5. Kreißig, H. in: EAZ 1969 (10), p. 361 ff.; 6. Kreißig, H./Fischer, H. in: JWG 1967, T. I, p. 270 ff.; 7. Schulz-Falkenthal, H. in: JWG 1973, T. III, p. 191 ff.; 8. Welskopf, E. Ch.: Die Produktionsverhältnisse im alten Orient und in der griechisch-römischen Antike, Berlin 1957; 9. *Actes du colloque (1971 ff.) sur l'esclavage*, Paris 1972 ff.; 10. *Formes d'exploitation du travail et rapports sociaux dans l'Antiquité classique*. Paris 1976.

Heinz Kreißig

2.3.2. Mining

In antiquity, mining and metallurgy were hardly developed further than in the ancient Near East; around 60 products were known: Metals and semi-metals (such as arsenic and antimony), alloys (bronze, electron, brass), precious and semi-precious stones, salts, asphalt, petroleum, sulphur, earths (emery), colored earths and healing earths, remedies made from metallurgical products - mainly compounds of lead, copper, silver - but also potter's clay. Their extraction gave rise to the oldest mining depiction in Corinth. [26]

Mining in Greece is economically and technically almost exclusively in the Laureion district [15] [16]

[17] [18] [20] [28], for other districts [1] [10] [14] [21] [26] [28] there are insufficient records. In Athens, the mines were and remained the common property of the polis; every citizen was entitled to lease a mining field for 3 years, or for 10 years in the case of new mines. They paid a fixed lease fee and a percentage of the yield. They could carry out mining work themselves or keep as many slaves as they wished - there were also entrepreneurs who rented out up to 1,000 slaves to mining companies. The mining fields were surveyed by the competent authority for state revenues (Poleten) and demarcated with concession certificates in stone. There were mining police regulations that forbade smoking neighboring pits while setting fires, bringing weapons, exceeding pit dimensions; dismantling safety pillars was punishable by death. Like the mines, the processing plants and smelting works required for mining operations were subject to licensing. Slaves employed here had a higher collateral value than the mine slaves if the companies worked with loans. The most important orators in Athens wrote court speeches for mining trials. The prosopographical material [17] identifies entrepreneurial families who were specifically involved in mining. It also shows that even as slaves, foreign specialists could rise to become highly respected company managers, leave behind self-confessed funerary inscriptions and **establish** cult associations [392]. [16] But the great mass of slaves were denied any advancement, and slave skeletons with shackles have been found archaeologically in mines.

There are three distinct mining periods in Laureion: The increase in silver production enabled Peisistratos to issue the Athenian drachma around 535 BCE, making it the dominant unit of currency. Around 483 BCE, the naval building program of the

Themistocles financed the defense against the Persians in the naval battle off Salamis by further increasing silver mining. Then, in 413 BCE, there was a setback with the flight of 20,000 slaves when the Spartans occupied Dekeleia in the war against Athens. After 404 BCE there was a slow resurgence, which was weakened around 340 BCE by the Macedonian mining yields in the newly founded (Krenides) Philippi.

Around 360 BCE, Xenophon published a program for the intensification of mining operations on a limited communal basis [18], which aimed to turn the political constituencies of Athens (phyles) into entrepreneurs by purchasing mining slaves. Theoretical considerations [12] [13] [27] [28] and a certain amount of specialist literature (mineralogical and mining writings by Theophrastus and Straton) were also developed at that time.

Technologically, mining operations in Laureion were poorly developed [7] [10] [28]: The so-called "Duckelbau" mining method was used, which opened up the district through more than 2,000 shafts without branching off into extensive side passages underground. Archaeological traces show that mining was carried out in a sitting position; at the depth of over 100 m, which was reached several times, ladders were also used in addition to access trees.

It is not clear whether reels (winches) or cranes were used. The processing plants known as Ergasterion [20] [28] were better developed; they had excellent cemented tenons for coarse and fine sorting, but above all an exemplary utilization of process water with reservoirs (small), cisterns and the return of the water flowing from the threshing floors. Careful work and successful economic consideration can be seen in this area of mining. The processing required infinite patience and attention, otherwise the fine metal flakes that came out of the ore mortars and panning mills would be lost.

In manageable small and medium-sized enterprises, the work of the slaves was easier to differentiate: If the slave was unwilling, he was assigned heavier work transporting loads and developing dust at the mortar - if he struggled, he was given a relatively comfortable, varied job.

The smelters, which were also operated like ergasteries, were the weakest technological link in the mining industry, and therefore a lot of lead and silver remained in the huge slag heaps, which were processed again from 1865 onwards. As the ergasteries were privately owned, most mine owners were heavily dependent on this entrepreneurial class, which was able to sell the ore for far less than it was worth.

Mining at Laureion did not cease completely in Roman times, as the revolts of the mining slaves in 104/103 and 101 BCE prove. [27] [16] Perhaps it shifted more towards the extraction of iron ore [21], which, although it cannot be precisely recorded anywhere [1], was also the most important sector in the Greek mining industry.

In the Ptolemaic mining industry, the conditions of exploitation were particularly harsh, as Marx [MEW 23: 250] later noted. The Ptolemies sentenced their political opponents and their families to lifelong mining labor in the gold mines of the Nubian desert. As Marx noted, this amounted to "rational dead labour", especially since hardly any of these forced miners had the necessary skills and had to succumb all the more quickly to the unaccustomed efforts. But elsewhere, too, the "rational dead labor" of the mine slaves must have been the economic principle of the entrepreneurs. This is not altered by the inscriptions of slave associations and cult communities, which document a limited cultural life of their own. [16]

The conquest of Etruscan mining areas around Populonia, opposite Elba, confronted the Romans, who were initially inexperienced in mining [9] [27], with questions of organization and administration, technology and operating law. They found remarkable solutions to these complex issues, even though they did not discuss the principles of the mining industry or metallogenesis. Their achievements usually only became tangible in the imperial period, with approaches beginning with the incorporation of Sardinia (248 BCE) and Spain (210 BCE). [2] [5] [9]

As far as the Carthaginians had developed silver mining in Spanish mining areas and were not only able to take over the metal production of the local miners, the original forms of operation had already been replaced by mass slavery, the organization of which remains unknown to us. The figure of 40,000 slaves recorded around 165 BCE raises questions about the operational possibilities - large-scale installations or wide open-cast mining-like fields of work are likely to have been very rare - and about the methods of supervision, as there was no state-run mining operation, but rather a leased operation by entrepreneurial organizations (*publicani*). With demonstrably high profits, the use and supervision of slaves seems to have worked in republican times.

The "Roman" mining technology was developed in Spain [5] [6] [10] and was tailored to the deposits there (gold, silver, lead, tin, copper, iron). This was the first time in ancient mining that machines were used to extract water in addition to the ore mill. Extraction or processing remained manual slave labour, where the entrepreneur invested nothing in mechanization. This points to the experience of highly developed Spanish agriculture, especially as the principles of land use also applied legally to the use of mineral resources. [24]

Spain also developed its own metallurgy, as Poseidonios speaks of elevated smelting furnaces with chimneys 5-7 m high. [6] [10] [25] It was in Spain in particular that experience was gained of health hazards during the production of lead and mercury. The best illustration of Roman mining in Spain is that it is almost the only place where a wide range of documents provide some insight into the structure: Inscriptions by miners and officials, laws (which are among the longest epigraphic documents), gears and lighting including mining accessories of various kinds, mining machines in all 3 types of construction (Archimedean screws, scoop wheels, boot pumps according to Ctesibios), metal ingots with manufacturer's notes, traces of mining and - as an exception - even the artistic depiction of a mine crew in their working clothes with various gears. There are also literary reports on details of mining practice. [2] [3] [4] [5] These show that the Romans set up a hydraulic mining operation of gigantic proportions, which used gravity to flush away terrace sands and boulders with accumulated water masses of up to 11,000 m³.

[30] In any case, this hydraulic mining (*agogae*) required a tremendous amount of work, which Pliny describes with great drasticness. It should also be noted that Latin terminology borrowed technical terms from Iberian at an early stage, including elementary terms (*adit*, search tunnel, *nugget*). These loan [394] words in Latin underline the importance of Spanish mining for the Romans: although they were only interested economically in metal production, learning and borrowing from the mining-savvy Iberians was inseparable from this in the process of interethnic exchange.

The material - often difficult to date - is sufficient to determine the impulses that mining passed on to economic life. This also includes the relocation of cinnabar production from the mercury center of Sisapo to Rome. The production, which had initially been based at the site, was uprooted in the course of the privileging of Italy and the monopolization of the capital and, given the low transport volume of the valuable raw material, transferred to Rome in order to produce the highly profitable cinnabar red. A production restriction was imposed on lead mining in Britain.

The transfer of the Spanish mountain farming experience to other provinces remains problematic. Almost all of them have special forms: Germania, for example, with quarries [23] and iron [22], Britain also with iron [11], but elsewhere important steps were also taken towards economic utilization [13]. In the other document-rich area, the gold quadrangle of Dacia [19], where there was a reshuffling of the population through the transfer of Dalmatian tribes with mining experience, it is possible, for example, to establish a hierarchy of officials based on titles, but it remains unclear whether those named actually cooperated in the same authority. This is because the 3 employment contracts on the wax tablets from Alburnus Maior concerning mine work in the gold mines there on

time for payment - the only ones from ancient mining - were clearly legally binding without the involvement of the authorities. In the Balkan mining districts, as in Spain, there is also evidence of the "mining colonies" - which have unfortunately received little attention to date, i.e. the social class that emerged after the demise of slavery as self-managing, rent-paying producers who were personally free but more or less tied to the land they had taken over. With their own or borrowed means of production, around 120 they also became tangible in the mining industry and not just in agriculture.

The replacement of slave labor by the newly formed, numerically limited social class of mining colonies gave the mountain towns a new structure. The barracking of the slaves ceased, the need for family accommodation increased; more or less centralized catering became superfluous, but demand arose for retailers. However, the new social group also made demands on state care for hygiene and physical culture. The mining colonist took better care of his tools than the slave, but he also paid far more attention to sophisticated, light and easy-to-use equipment of good quality, which was of course expensive. The eagerness to work may have been considerable, but the increase in the cost of metal production could not be avoided, not even by the quickly failed attempt to use soldiers for mining work.

Thus the Roman state, like that of the Ptolemies, resorted to imposing mine labor as a punishment for 22 "death-worthy" crimes. [24] [25] In this way, it gained a not inconsiderable number of new workers who had been punitively reduced to slavery in exchange for the mere cost of food. The punishment was imposed for a period of time or for life and was served in mines or quarries; it also affected Christians who had become *lèse majesté* criminals by refusing to sacrifice to the imperial cult.

The use of criminals is likely to have greatly reduced the free miners' willingness to work and their motivation, but the predicament becomes clear from a report by Strabon written [395] shortly before the turn of the century: even during his lifetime, a large vitriol mine was abandoned because the slave mortality rate was so high as a result of unfavorable working conditions that, with relatively low slave prices, profitability was nevertheless lost.

The efforts of forced labor in the mine were described not only by Christian reporters, but also by Galen, who visited a vitriol mine in Cyprus and was the only ancient author to describe his mining experience. [29]

Incidentally, with a clear eye for economic aspects, the ancient physicians also provided information about pharmaceutically usable by-products of the mining industry, such as Dioscorides about a large-scale smelting works with a flue dust chamber for collecting zinc oxide - the exact details allowed a reconstruction of the impressive plant. [30]

The Roman mining administration was only given a central position in the *comes metallorum* in the later imperial period [4] [5] [8] [25], otherwise it was structured at provincial level, or neighboring provinces were grouped together. Iron ore mining remained "private". Mining stagnated from around 195 and was no longer able to supply the required quantities of coin metal. On the other hand, iron and lead, of which vast quantities were needed for pipelines and roofs, were not in short supply, and even copper and tin were not in short supply until around 600. In the meantime, the imperial government had stopped the flow into other professions and declared the miner to be an inherited profession - all descendants had to become miners again. Although strict orders and monitoring were carried out, more and more forced miners (*metallis adscripti*) left their profession. The Bessi in Thrace, who were experienced miners, then openly rebelled and, outraged by the tax screw, joined the Visigoths and defeated the emperor Valens with them in the Battle of Adrianople in 378.

Literature:

1 *Bakhuizen, S. C.*: Chalkis-in-Euboea, Iron and Chalkidians abroad. Leiden 1976; 2. *Blázquez, J. M.* in: *Anuario de Historia económica y social de España* 1969 (2), p. 10 ff; 3. *Ders.* in: *Revista Española*

de Historia 1973 (33), p. 205 ff.; 4. *Ders.* in: Aufstieg und Niedergang der römischen Welt. Bd. 2.3, Berlin (West) 1975, p. 453 ff.; 5. *Blümner, H.*: Technologie und Terminologie der Gewerbe und Künste bei Griechen und Römern. Vol. 4, Leipzig 1887; 6. *Bromehead, G. N.* in: A History of Technology. Vol. 1, Oxford 1964, p. 558 ff.; 7. *Burian, J.*: Evropské rudné doly za římského císařství. Prague 1954; 8. *Conrad, H.-G.* in: Berichte der Staatlichen Bodendenkmalpflege im Saarland 1968 (15), p. 110 ff.; 9. *Davies, O.*: Roman Mines in Europe. Oxford 1935; 10. *Preise, F.*: Geschichte der Bergbau- und Hüt- tentechnik. Vol. 1, Berlin 1908; 11. *Guyan/Pleiner/Fabesova*: Die Versuchsschmelzen und ihre Bedeu- tung für die Metallurgie des Eisens und dessen Geschichte. Schaffhausen 1973; 12. *Halleux, R.*: Le problème des Métaux dans la science antique. Paris 1974; 13. *Ders.* in: Chronique d'Égypte 1973 (48), p. 370 ff.; 14. *Ders.* in: Revue d'histoire des mines et de metallurgie 1973 (9); 15. *Hopper, R. J.* in: Greece and Rome 1968 (8), p. 140 ff.; 16. *Lauffer, S.* in: Die Bergwerkssklaven von Laureion. Vol. 1- 2, Wiesbaden 1957; 17. *Ders.* in: Historia 1957 (6), p. 287 ff.; 18. *Ders.* in: Thorikos and the Laurion in archaic and classical times. Ghent 1975; 19. *Maghiar, N./Olteanu, Șt.*: Din Istoria mineritului în România. Bucharest 1970; 20. *Marinos, G. P./Petraschek, W. E.*: Laurium. Athens 1956; 21 *Pleiner, R.*: Iron working in Ancient Greece. Prague 1969; 22. *Ders.*: Die Eisenverhüttung in der "Germania magna" zur römischen Kaiserzeit. Berlin 1965, p. 11 ff.; 23. *Roeder, J.* in: Bonner Jahrbücher 1957 (157), p. 213 ff.; 1959 (158), p. 47 ff.; [396] 24. *Schönbauer, E.*: Beiträge zur Geschichte des Bergbaurechts. Munich 1929; 25. *Täckholm, U.*: Studien über den Bergbau der römischen Kaiserzeit. Uppsala 1937; 26 *Weisgerber, G.* in: Der Anschnitt 1976 (28), p. 38 ff; 27 *Wilsdorf, H.* in: 1.3.8; 28 *Ders.* in: Hell. Pol., vol. 4, p. 1741 ff.; 29. *Ders.* in: Jahrbuch des Staatlichen Museums für Mineralogie und Geologie zu Dresden 1964 (10), p. 387 ff.; 30. *Ders.* in: Klio 1977 (58), p. 11 ff. (see also 2.2.2.).

Helmut Wilsdorf

2.3.3. Ownership structure

The typical property relationship of the ancient mode of production is the individual private ownership of land within the framework of a communal system in which only the full citizen can be a landowner, only the landowner can be a full citizen. However, this model was hardly ever consistently achieved anywhere. In fact, even during the development of this form of ownership from variants of the ancient oriental forms (Cretan-Mycenaean, Etruscan), the allocation of the largest and best pieces of land to the gentil aristocracy soon led to differentiations that gave rise to a class of propertyless citizens. Quantitatively, however, the small to medium-sized landownership of the free polis citizen or Roman citizen predominated. This class of small farmers formed the actual mass of the people throughout the entire existence of the ancient social formation. [8] [7] [10] [12] [15] [18]

There are major differences between Greece and the Roman Empire in the understanding of small and large property. The geographical conditions and the narrow state boundaries of a polis did not allow for a truly large-scale expansion of land ownership in the Aegean regions. In the Greek motherland, for example, estates of 10 ha were already part of absolute large-scale property. [1] [2] [14] In the early phase and heyday of the ancient mode of production in Rome, large-scale land ownership mainly took the form of scattered ownership. The special form of latifundia only developed in the later Roman Empire. [6]

In this respect, the differentiation of wealth in the Greek polis never led to an excessive concentration of land in a few hands. [2] In the Roman Empire, this concentration only became established with the overcoming of slavery through the colonate, i.e. from the end of the 2nd century. [7] Nevertheless, the allocation of the better land or the larger shares of land to the aristocracy in the process of land acquisition in Greece and the establishment of an independent state in Rome led to the fact that with the elimination of the (army) kingship, city states were initially formed under the rule of the nobility, in which the state was also dominated by the nobility and used as an instrument of exploitation and domination of the other members of the community, i.e. the majority.

The tendency to deprive the non-noble members of the community of their right of ownership to the main means of production, the land, and to reduce them to debt servants or even debt slaves,

Both the Greek and the Roman-Latin peasants responded with a fierce class struggle, which prevented this development, but not further differentiation in the social structure.

When Greek tribes conquered land on the Greek peninsula and in Asia Minor, some of the earlier settlers were displaced by sea, but some were also included in the founding of the state as subjects without civil rights. For the most part, [397] such sections of the population (Penesten in Thessaly, Helots in Sparta, etc.) remained in possession of their plots of land, but had to transfer a more or less large part of their labor product to the full citizens. This was done either in cash by the village communities to the state apparatus or by the individual owners, to whom their parcel of land was transferred for usufruct. In both cases, the land of these dependent communities must be regarded as state property. In Hellenistic times, farmers without civil rights (almost always non-Greeks) also lived on plots of land belonging to the individual property of full citizens - albeit only in Asia Minor and on Aegean islands. [9]

As a result of the class struggle of the small property owners against the aristocratic large landowners, which in Greece was often promoted by the tyranny and in Rome was realized in the conflicts between the patrician and plebeian classes, the privileges of the old nobility were largely abolished (in Greece definitively from the 5th century BCE, in Rome from the 3rd/2nd century BCE). However, land redistribution was always prevented. Such attempts, which were repeatedly made in Rome (Gracchi) in particular, led to civil war-like situations in which the ruling classes prevailed. However, large-scale land ownership was no longer restricted to the nobility. The class of large landowners was not identical with the aristocratic class, neither in Greece nor in Rome in the heyday of the slavery system.

Other forms of ownership existed in the Greek regions that did not develop the polis system but existed in the form of tribal states (Thessaly, Crete, Aetolia, etc.). Here, the aristocracy's privileged ownership of large estates was never questioned. The majority of peasants lived as dependent owners on their hereditary plots (Penesten in Thessaly, Klaroten in Crete). The dependence of the owners on the owners was expressed in taxes, military service, forced labor both for public needs and on the separate estates of the nobility, etc. Slavery in agricultural production had no place in these tribal states.

A special form emerged in Sparta: although a military center was created here that bore some of the criteria of a polis, the forms of ownership of a tribal state were retained. The Laconic and later also the Messenian peasants were subjugated, their land declared state land and divided into parcels (*klaroi*) for the use of the fully entitled Spartans. [12] This form could only be maintained with the constant use of force against the peasants called Helots. The Messenians in particular repeatedly rose up against Spartan oppression.

In the Hellenistic kingdoms (Macedonia, Thrace, the Seleucid Empire, Ptolemaic Egypt, the Pergamenian Empire and small states), the ancient oriental forms of ownership were predominantly preserved. The land was regarded as royal property from the outset, but large parts of it were either ceded without restriction to cities, temples and private individuals (dignitaries, relatives of the king, etc.) or granted as an honorary gift for usufruct on revocation. On royal land, which comprised both large estates directly subordinate to the court and scattered villages, the royal peasants (*laoi basilikoi*) were directly subordinate to the king; the laoï paid their taxes or performed their labor duties to the new owner or usufructuary on the granted land. Here, too, the farmers lived on the same plot of land for generations in succession. [3]

[10] [11] [17] In addition, poleis with limited or virtually no autonomy continued to exist within the framework of Hellenistic kingdoms. These were either subjugated former autonomous poleis (Miletus, Ephesus, etc.) or newly founded ones (Alexandria in Egypt, Antiocheia in Syria, etc.). It was not uncommon for the ancient and ancient oriental forms of ownership to exist in these city territories

side by side. We find direct polite property, land given to polites for use by local farmers and also common peasant land that was subject to municipal administration. In the latter two cases, the peasant landowners had no or only very limited civil rights in the city to whose territory (*chora*) they belonged. [9]

The temple land was also either the unrestricted property of a temple or had been revocably transferred to it. It was cultivated by the farming communities on this land (called *catöks* or *hierodules*), who were dependent on the temple. [11] These *hierodules* living in communities should not be confused with the temple slaves, also known as *hierodules*, who were involved in various forms of cult practice (menial physical labor, administrative and scribal work, prostitution, etc.).

The principle of forms of ownership and dependence, as we find it on the land of Greek tribal states, in Hellenistic (and African and other) kingdoms, was to assert itself in the specific form of the colonate with the demise of the slavery system in the Roman Empire. [5] [6] [7] [8] In any case, the relationship between the hereditary native peasant and a personal or institutional owner of his plot of land (Roman citizen, Roman state, native aristocrat, etc.) in the conquered territories (provinces) had remained the predominant one from the very beginning. The slavery system was only extended along the coasts of the Mediterranean and in the cities along important transportation routes and rivers.

Early forms of the colonate date back to at least the 2nd century BC. [8] At this time, and until the 1st century, it was predominantly a form of free tenancy. For fear of slave revolts, due to the lack of profitability of slave labor on agricultural land (with the exception of crops such as wine and olives) or the impossibility of sufficient supervision, large landowners stopped using their land in the ancient way, i.e. by exploiting slave labor. They began to lease it in smaller pieces (as long as the large property was not made up of scattered small pieces of land) for a certain period of time. The tenants were called *coloni*.

As tenants tried to make as much profit as possible during the tenancy period by overexploiting the land and then leaving it and renting another piece of land, the colonies were eventually - probably from the end of the 2nd century - tied to the land. This turned the free contractual relationship, which from the beginning had also been characterized by a kind of patriarchal dependency, into a relationship of oppression and exploitation. The *colons* lost more and more rights, so that finally the colonate could be defined as an entrenched system of exploitation in the social structure. The duties paid by the *colons* to the landowner originally consisted mainly of a monetary rent, but in connection with the decline in commodity-money relations they increasingly took on the character of duties in kind - either lump sums or percentages of the harvest. In any case, the risk of bad harvests, war damage, requisitions etc. was passed on to the *colonists*.

On the basis of the colonate, ever larger areas developed from the 3rd century, the beginning of the dominion, as the property of private individuals, who also received ever greater rights on this territory, e.g. their own jurisdiction, their own customs administration, their own police force and the like. This is referred to as exempt territories, which were not subject to any administration other than that of the landowner. It is clear that there are already strong elements of feudalism in this system.

Until the fall of the Western Roman Empire and even afterwards, however, island-shaped areas with urban forms of ownership continued to exist in Western and Central Europe, i.e. medium and small-scale land ownership by citizens who farmed their land with the help of family members, slaves and day laborers (e.g. Upper Italy, Pannonia). [4]

In the Eastern Roman Empire, on whose territory slavery was never so widespread (with the exception of the Greek peninsula), the transition to feudalism was smoother, more continuous, but

also proceeded more slowly. The forms of ownership of the means of production in the commercial sector were less diverse than in agriculture. They also developed only slightly.

From the beginning of the ancient mode of production to its end, there was the small master craftsman who worked alone, with family members, with 1-2 slaves or with day laborers. He was a typical phenomenon in the Greek poleis, but at all times also in Rome and in all cities of the Roman Empire.

In the heyday of the slavery system, the ergasteries developed into large workshops with slave and wage labor owned by a private individual or the state (in Hellenistic kingdoms mainly by the king and the personalities of his surroundings). With the stagnation of slavery and the decline of the urban economy from the 3rd century onwards, the importance of the gasworks declined. At the same time, a small trade developed in the exempt territories, which strengthened their efforts to become self-sufficient.

The following diagram can be drawn up for the overall development of property forms:

EARLY PHASE

Floor

Greece

Poleis

- privileged property of the nobility that emerged from the gentile aristocracy (relative greatness)
- Parcel ownership of non-noble polities (relative small and medium-sized property)
- Dependent land ownership of indebted polities
- Dependent land ownership of subjugated populations (especially in the territory of Asia Minor and Sicilian poleis)

Tribal states

- Major property of the aristocracy
- State property transferred for use to privileged members of the community
- dependent land ownership of the peasant population

Ro m/I t a l i e n

- Large estates owned by Roman patricians
- Small property owned by Roman plebeians
- State ownership of conquered land, granted with de facto property rights to Roman citizens or settled by the subjugated Italic tribes with de facto restricted ownership

Ownership of handicraft means of production Greece and

Rome

- Separation and specialization of crafts in micro (one-man) businesses [400]

HEYDAY OF THE ANCIENT PRODUCTION METHOD

Floor

Greece

Poleis

- differentiated private property of the polites in the territory (chora) of the polis

- Dependent land ownership of subjugated populations (only in Asia Minor and Sicily)

Tribal states

- Unchanged from early phase, occasional intrusion of private property noticeable

Roman/Italy

- differentiated land ownership by Roman citizens
- State property, especially in provinces, given to local population, veterans; partly transferred to private property of Roman citizens
- Start of the colonate

Ownership of handicraft means of production Greece and

Rome

- differentiated craft businesses
- Emergence of ergasteries (large companies with division of labour and extended specialization) LATE PHASE

Floor

- differentiated land ownership by Roman citizens
- Concentration in a few hands
- Formation of exempt territories
- developed colonate

Craft

- Stagnation of development due to a return to the natural economy
- Small businesses on exempt territories

Literature:

1. Audring, G. in: *Hell. Pol.*, vol. 1, p. 108 ff.; 2. Ders. in: *Klio* 1974 (56), p. 445 ff.; 3. Briant, P. in: *JWG* 1975, T. IV, p. 115 ff.; 4. Glavell, M./Lévêque, P.: *Villes et structures urbaines dans l'occident romain*. Paris 1971; 5. Finley, M. I.: *The Ancient Economy*. London 1973; 6. Ders. in: *Studies in Roman Property*. Cambridge 1976, p. 103 ff.; 7. Garnsey, P. *ibid.* p. 123 ff.; 8. Kolendo, J.: *Le colonat en Afrique sous le Haut-Empire*. Paris 1976; 9. Kreiβig, H. in: *Die Krise der griechischen Polis*. Berlin 1969, p. 57 ff.; 10. Ders. in: *JWG* 1975, T. II, p. 101 ff.; 11. Ders. in: *Klio* 1970 (52), p. 231 ff.; 12. Lotze, D. in: *JWG* 1971, T. II, p. 63 ff.; 13. Musiolek, P. in: *JWG* 1976, T. II, p. 135 ff.; 14. Pečírka, J. in: *Ricerche storiche ed economiche in memoria di Corrado Barbagallo*. Naples 1970, p. 458 ff.; 15. Ders. in: *JWG* 1971, T. II, p. 55 ff.; 16. Sak, S. in: *JWG* 1970, T. I, p. 19 ff.; 17. Šifman, I. Š. in: *Palestinskij sbornik* 1966 (15), p. 91 ff.; 18. *Problèmes de la terre en Grèce ancienne*. Paris 1973.

Heinz Kreiβig [401]

2.3.4. Money, monetary system

With the division of labor and the development of commodity production, the first forms of money emerged: cattle money, tool money, metal ingots (see 2.2.4.). However, the constantly growing production of goods, due to the development of private ownership of the means of production, as well as the ever-increasing expansion of trade, eventually made a means of payment necessary that could meet the new needs of exchange to a far greater extent than the forms of money used up to that point. In order to significantly simplify and facilitate payment transactions in the mutual exchange of goods, an equivalent was needed that was capable of adapting to the requirements of the market - an equivalent that could be divided at will, that could be used for a long time and that

could be used for a long period of time.

The coin is durable and at the same time stable in value, which no longer needs to be weighed but only needs to be pre-counted and which represents a high value, especially with a relatively small volume. The equivalent that combined all these properties was the coin as an easy-to-handle piece of metal with a fixed weight and fineness, whose constant quality was guaranteed by the mint master through the imprinted image (and writing) [6]. It became the dominant equivalent, but never completely ousted the pure product exchange from the market. A distinction must be made between its role as a measure of value, i.e. as a basis for calculating the price of a commodity, and as an actual means of payment in circulation.

The earliest forms of minted money are found among the *Greeks*. The coin was created around 625 BCE on the west coast of Asia Minor [7] and its "invention" (Herodotus and others) is attributed to the Lydians or Ionians. It thus originated in an area where the arable land necessary for extensive agriculture was lacking due to high mountain ranges (Tauros Mountains) in the hinterland. The inhabitants of this area were therefore forced to secure their existence through efficient trade.

From the west coast of Asia Minor, coinage gradually spread to the Greek mainland via the island of Aigina. Analogous to the political fragmentation of Greece into individual, independent poleis, Greek coinage was also divided into numerous, independent polis with their own currency systems and coin designs. Coinage law has always been an important part of Greek autonomy.

Coin design: It mostly refers to fauna and flora as well as to the religion of the minting polis: turtle (as a symbol for the sea on the coins of Aigina), tuna (Kyzikos, for which tuna fishing was one of the main branches of industry); the apple for Melos, the rose for Rhodes and others are "talking coats of arms" (melon = apple, rhodon = rose). The coins of Athens have the head of the city goddess Athena on the obverse and her sacred owl on the reverse (in the vernacular these coins were called glaukophoroi, owl bearers; the saying "carrying owls to Athens" goes back to these coins). Initially, there was very little writing on the coin - mostly only initials, later the fully spelled out ethnikon (the resident's name derived from the geographical name) in the gen. Plur. to which "coin" or similar is to be added (e.g. coin of the Athenians); now and then we encounter emission marks, names of mint masters (as monograms) or eponymous officials. Value indications are completely absent; sometimes the image on the coin was used to indicate the value, e.g. in Corinth, where the drachm bore the whole animal (Pegasus) as an image, whereas the midrachm only bore the front part of the animal.

Metal: The first coins were made of electrum, a natural mixture of [402] gold and silver. Later, the Greek poleis switched to pure silver coinage, as silver was abundant in Greece (silver mines at Laureion, on Thasos and in the north in the Pangaion mountains). Only the Lydian and Persian kings minted gold coins, as they had rich gold deposits in their country, but only very few or no silver deposits at all. Athens' gold coinage around 406 BCE was an emergency coinage in that Athens' reserves were exhausted as a result of the Peloponnesian War, but Athens needed money to build a new navy. For this purpose, the gold covering of the statue of St. Nicholas on the Acropolis was melted down and converted into money. The minting of bronze coins did not begin until the 4th century BCE, but never went beyond a small scale.

Currency system, coinage, denominations: Just as the Greeks did not have a uniform coinage, they also did not have a uniform *currency system*. It was divided into numerous *coinage systems*, of which the Persian, Thraco-Macedonian and Euboean were the oldest and the Attic and Rhodian the best known and most widespread. The minting standard is the legal regulation on the weight and fineness of a coin, whereby the weight also corresponded to the *nominal value* (credit coins, i.e. coins where the nominal value is higher than the material value, were not known to the Greeks). Coin denominations and weight denominations are therefore usually identical. The most important coin denominations are

Talent: Always the highest unit of all weight systems, divided into 6,000 drachmas. The weight of the talent also varied depending on the prevailing coinage. Over the course of time, however, the Attic talent in particular became established. Its standard was 26.2 kg. However, it was never minted as a coin.

Drachma: basic unit of all Greek coinage. Its weight varied depending on the coinage. The standard for the Attic drachm was 4.366 g, and after a gradual reduction it was eventually only 4.12 g. There were also multiple drachms: double (didrachm), triple (tridrachm), quadruple (tetradrachm), etc. The drachm was divided into halves (hemidrachm) or sixths (obolos), for example. When different currencies clashed, people often helped each other out with so-called equalizing coins (e.g. 1 Rhodian tridrachma = 1 Aeginetan didrachma).

Obolos: Originally iron money in the form of rods or skewers (obolos = roasting spit) as an equivalent for barter. As six such skewers could be grasped by one hand, a unit of six was called a drachma (drassomai = "to grasp with the hand"). Therefore, in the later Greek system of weights and coins, 6 obols = 1 drachma. The Attic obolos weighed 0.73 g. There were multiple obols - e.g. the double (diobolos) or the triple (triobolos) - as well as subdivisions, with the Attic system having the most. Here the obolos was even divided into eighths (hemitetartemorion). At 0.09 g and 0.4 mm in diameter, this $\frac{1}{8}$ obolos was the smallest monetary unit that ever existed. - At the end of the 5th century BCE in Athens was paid 3 obols by the state for his loss of earnings when participating in the people's assembly.

The extent to which coined money dominated the local market as a means of payment is unknown. However, the wide range of subdivisions of the obolos in Athens shows that, at least here, coined money seems to have completely replaced the exchange of products. In other poleis, on the other hand, the exchange of products probably continued to exist, since the coins were often subdivided no further than the hemidrachm or the obolos, i.e. up to values that were far too high for small and very small goods. In addition, until the second half of the

It is not known whether in the 5th century BCE - and even later - many poleis did not issue any coins [403] at all. If many of them are mentioned in the tribute lists of the Delian-Attic League with tribute fixed in talents or drachms, this merely means that these nominal values only functioned as units of account, as measures of value; the tribute was actually paid in kind.

Distribution of the coin: The Athenian tetradrachm was the most widespread. We find it in abundance in Sicily, where it was replaced by Corinthian money around 400 BC. In the 4th century BCE, the Athenian tetradrachm was found en masse in Egypt and far into the eastern part of the Persian Empire. The reasons for this are the lack of silver in these areas, where the demand for silver was met by importing Athenian tetradrachms. [9] Thracian poleis also participated in this silver trade, especially Abdera, which created a particularly large denomination - the octodrachm - specifically for this purpose. The Cyzicene coins (the so-called Cyzicenes) dominated the market in the northern Black Sea region. [8]

The coinage system in *Hellenism* [10] was decisively shaped by the coinage policy of the Macedonians. It differed from the Greek coinage of the previous centuries in the following respects:

- In contrast to the many independent polis coinages, territorial coinage dominated in Hellenism - due to the political and historical development towards a territorial state. The poleis integrated into these territorial states had to give up their own independent coinage in favor of a centrally controlled "territorial royal coinage".

- The coin image is dominated by the portrait of the ruler. It develops from the head of the god, which is gradually transformed into the portrait of the Hellenistic ruler.

- In place of the many, mostly localized currency systems, the Attic currency almost took on the role of a "world currency" in the eastern Mediterranean.

In order to be able to grant the king the necessary economic power to assert his political interests, Philip II introduced the Attic currency for gold coinage and Alexander III also for silver coinage. This brought the Macedonian monetary system into line with a currency system that had developed into the most popular and common currency in the eastern Mediterranean as a result of Athens' supremacy in Greek trade and the fact that Attic coinage had remained solid for generations. However, the development of the Attic currency into a "world currency" was also promoted by the fact that the poleis in the areas occupied by the Macedonians were forbidden to mint their own money; instead, they had to accept Macedonian money and in some cases mint it in their mints in order to cover the demand for money in Alexander's empire.

– Alongside silver, gold became a common coinage metal during the Hellenistic period. The first extensive gold coinage was introduced by Philip II, who used the gold mines of (Krenides-) Philippi in Macedonia for the first time.

The Macedonian coinage policy was essentially continued by the Diadochi. It should be noted that both the eastern regions of the Seleucid Empire and Egypt - due to their socio-economic structure - did not have any monetary transactions until the 4th century BCE. The money imported into these areas (Athens, northern Greece, etc.) was used as an equivalent, but not according to its nominal value, but according to its weight. It was also used primarily to cover the demand for silver. Coinage only came into the country with Alexander III; in India, too, the minting of coins only began after Alexander's Indian campaign.

[404] Only the Ptolemaic coinage deviated from the generally accepted Hellenistic coinage system. The Ptolemaic state is the only one that switched from the Attic to the much lower Phoenician currency system under Ptolemy I. The reasons for this can be found above all in the Ptolemaic trade policy: By adopting the Phoenician currency, it was extremely easy to conduct monetary transactions with the Phoenician coastal cities belonging to the Ptolemaic Empire, which always minted according to this coinage; likewise with Carthage, which also preferred this currency and which was one of the main buyers of Egyptian goods. In addition, this measure meant that the indispensable precious metal, which was not available in Egypt itself, remained in the country, as the export of precious metal money was completely prevented. The lack of its own precious metal was also the reason why Egypt issued a large amount of copper coinage to support its precious metal coinage, which with its weight of up to 100 g per coin could certainly serve as an equivalent for larger payments. The consequence of this Ptolemaic monetary policy, however, was a sharp economic separation between Egypt and the other Hellenistic states, as Ptolemaic money could only circulate within its own country.

In addition to the Hellenistic royal coinage, from the 2nd century BCE there was also extensive polis coinage again. With the declaration of freedom by Rome in 196 BCE (after the Second Macedonian War), most of the now autonomous poleis once again began to coin their own money. However, it differed from that of the pre-Hellenistic period in that almost without exception it followed the Attic currency. The time of the many, more or less locally limited currency systems was over. With this standardization of the monetary system, the polis ultimately submitted to the general development of the territorial state in the monetary field as well. The most important polis coinages of this period are those of Athens, Thasos and Maroneia. They can be found above all in the Balkans, where they became the main means of circulation and were eventually imitated by the Celtic tribes.

In contrast to Greece, *Rome* had a standardized coinage system. It was based on the libra = pound, which weighed 327.45 g and was divided into 12 ounces. Rome initially only issued copper money and only switched to silver coinage in the 3rd century BCE [12] and finally to gold coinage under Augustus. The monetary economy reached its highest level of development in the Roman Empire. In connection with the economic crisis in the 3rd century and the associated decline in the production of goods, especially in the western part of the Roman Empire, the monetary economy also declined again.

Coin design: In Republican times, it initially consisted of the heads of the main gods (Roma, Iuno), later of the portraits of the ancestors of the respective mint masters and of family symbols. From Augustus onwards, the obverse always shows the head of the emperor (or his family members) and the reverse often alludes to government programs (e.g. Concordia or Pax depicted as a deity) and political events in addition to general depictions of gods (Iuppiter, Iuno, Venus etc.). From the 4th century onwards, the coin images on the reverse are reduced to predominantly military depictions (e.g. warriors with standards), while Christian symbols become increasingly common. Imperial names, titles, offices and the names of victors are also recorded.

Nominal value: The as was the most important copper coin of the Roman Republic. However, it was subject to constant reductions and at the end of the Republic it finally amounted to only $\frac{1}{2}$ ounce. Augustus introduced a new ace, which weighed $\frac{2}{3}$ ounce (10.92 g). After constant reductions in value and weight, the minting of as was finally discontinued in the 3rd century.

[405] Sestertius: Originally the smallest Roman silver coin. Its value was $2\frac{1}{2}$ As. From Augustus onwards, the sestertius was minted in brass with a standard of 27.30 g, but suffered constant deterioration until its minting was discontinued in the 3rd century.

Denarius: The most common Roman silver coin since its introduction at the end of the 3rd century BCE. It originally had a value of 10 as (4.55 g), but during the imperial period it steadily declined, and the introduction of the double denarius around 215 did not lead to any stabilization. It eventually consisted only of white copper, i.e. copper with a small amount of silver. Further - unsuccessful - attempts at stabilization were made at the end of the 3rd and beginning of the 4th century.

Aureus: After initially being minted sporadically from around 200 BCE, the aureus was first issued on a large scale under Caesar. Under Augustus, it became the basis of Roman gold coinage. Its standard was $\frac{1}{40}$ pounds (8.19 g), and the rate was: 1 aureus = 25 denarii = 100 sestertii. Nero reduced it to 7.28 g. After that, its weight fluctuated constantly and finally fell so low in the 3rd century that the aureus could only be traded according to its weight and no longer according to its nominal value. Attempts at stabilization at the end of the 3rd century were also unsuccessful. Its coinage was finally discontinued.

The mint for Roman money was Rome. However, with the increasing expansion of the Roman state, the capacity of this one mint was not sufficient to supply the territory with money, so numerous provincial cities (former Greek poleis) were given the right to mint coins. However, this only applied to the minting of bronze coins. This so-called provincial coinage was a locally limited city coinage, which, however, contributed significantly to the financial crisis due to its uncontrollability by the Roman state. It was therefore banned again by Rome around the middle of the 3rd century.

Constantine I's *coinage reform* marks the beginning of the last phase of Roman coinage. This reform succeeded in stabilizing the currency again.

Solidus: It was introduced around 312 and replaced the aureus. It was standardized to $\frac{1}{72}$ pounds (4.55 g). Its denominations were the semis (half) and the triens (third). The solidus existed in undiminished value until the end of the Byzantine Empire and was eventually adopted by some tribes of the Migration Period.

Siliqua: It was minted alongside the solidus as a silver coin from the 4th century. Its value was $\frac{1}{24}$ solidus. However, the bulk of the money was copper, which was minted in several denominations, although the ancient names for the individual denominations are unknown.

However, the most important feature of Constantine's coinage reform was the tight organization of the entire coinage system. Although minting was distributed among many mints, which in turn were divided into departments (officinae), these were subject to a meticulous control system. The names of the mints, the official numbers and the issue numbers, marks and letters, which were used to precisely control the issue, appeared on the coins.

The coinage system introduced by Constantine I was also adopted by the Byzantine Empire. The solidus remained the almost sole gold coin. Silver was minted less, but a rich copper coinage was issued, which was marked with denominations not previously used in antiquity: M = 40, K 20, I = 10 nummia, with 6,000 nummia presumably making up one solidus.

Banking [2]: It emerged with the development of trade. Loans in kind with and without collateral were already known in ancient oriental society, as were banking laws and simple bookkeeping. The temples were the centers of early banking. The reserves of natural resources, especially metal (copper ingots), concentrated in the Mycenaean palaces and the detailed records of these reserves (see 2.2.4.) can also be interpreted as the first signs of a banking system.

However, the banking system only underwent rapid development with the advent of coined money. The Greek name for the bank is *trapeza* (table). We distinguish between temple banks and private banking institutions. The former are the older ones (since the 6th century BC), they initially only kept valuables and money, later they also lent money - mainly from the income of their estates. They became centers of capital (e.g. Ephesus, Delos). The interest rate was at least 10%, for sea loans up to 30% due to the high risk. The private banks, most of whose owners were Metöks or freedmen, initially limited themselves to money exchange, later also to bonds, pawn transactions and occasional investments. In Athens, the exchange business is first documented in 458/457 BCE. Cashless giro transactions emerged during the Hellenistic period. Numerous banks were established during this period. Ancient banking reached its highest level of development in Ptolemaic Egypt. Here, the Ptolemaic state bank had a monopoly and an extensive network of branches throughout the country. In the Roman imperial period, banking also spread to the provinces - albeit with varying degrees of intensity depending on the socio-economic development of the provinces. As a result of the economic crisis in the 3rd century, banking declined again in the west of the Roman Empire. Loans in kind with high interest rates became more common again. It was not until the late 6th century that banking began to gradually expand again.

Literature:

1. *Bernhart, M.*: Handbuch zur Münzkunde der römischen Kaiserzeit. Halle 1926; 2. *Bogaert, R.*: Banques et banquiers dans les cités grecques. Leiden 1968; 3. *Franke, P. R./Hirmer, M.*: Die griechische Münze. Munich 1972; 4. *Haeberlin, E. J.*: Aes grave. Frankfurt/M. 1910; 5. *Hultsch, F.*: Die Gewichte des Altertums. Leipzig 1898; 6. *Regung, K.*: Münzkunde. Leipzig/Berlin 1930; 7. *Robinson, E. S. G.* in: The Numismatic Chronicle, Series 6, 1956, vol. 16, p. 1 ff.; 8. *Schönert-Geiß, E.* in: Klio 1971 (53), p. 105 ff.; 9. *this.* in: Klio 1974 (56), p. 377 ff.; 10. *this.* in: Klio 1978 (60); 11. *Suhle, A.*: Die Münze. Leipzig 1969; 12. *Thomson, R.*: Early Roman Coinage. Vol. 1-3, Copenhagen 1957-1961; 13. *Wörterbuch der Münzkunde.* Leipzig/Berlin 1930.

Edith Schönert-Geiß

2.3.5. Trade and transportation

The development of trade in Greco-Roman antiquity is linked to the establishment and consolidation of ancient private property relations. What was needed to live and work was mainly produced in the household. However, as neither cultivable land nor all the necessary raw materials were available in unlimited quantities, individual products had to be bartered. In addition, luxury goods and other items were sporadically offered over long distances. As the need for foreign commodities gradually became established, at least some of the products of labor had to be consciously produced for exchange. [MEW 23: 103] Trade gradually subjected production more and more to exchange value and [407] pushed the immediate use value more and more into the background. [MGr 741 f.]

A new quality of trade was achieved when coinage became more widely accepted as an abstract exchange value - in Greek cities in the 5th century BCE and in Rome in the 2nd century BCE.

(in contrast to intermediate trade among peoples of different social levels) a highly developed trade. [MEW 25: 345] Its intensification was accompanied by the development of cities into centers of trade and crafts. Cities became economic centers for the surrounding area. Since the exchange of goods was linked to traffic and transportation on suitable land and sea routes, the development of trade and the expansion of transportation and traffic were directly linked. Marketplaces, harbor facilities and shipyards were built in the cities, and roads were extended inland. In its heyday, trade in the ancient states differed from that of the ancient Near East in that it was not only predominantly luxury goods and raw materials that were on offer, but also production specifically for the foreign market, which can only be documented for a time in some centers in the Orient. In Greco-Roman antiquity, domestic trade flourished; the hinterland was also involved in production for the urban markets. Only the decline of the ancient cities led to a decline in trade.

In *Greece* after the Dorian migration, production was largely self-sufficient in the households (oikens). Shepherds or landowners went to the cities themselves to exchange their own products for tools (Hesiod, *Works and Days* 407) or raw materials such as iron (Homer, *Iliad* 831 f.). Peasants and the local aristocracy participated in small-scale long-distance trade. Foreigners (Phoenicians) also imported goods. Among other things, food, slaves and some commercial and luxury items were purchased (Homer, *Odyssey* 15, 414 f.). Well-known religious festivals in Greece offered favorable opportunities for markets. Initially, trade and transportation by land were relatively more important than by sea (Thucydides 1, 13). In accordance with the geographic conditions, there were mainly railroads, rarely dams (unlike in the Roman Empire). Connections led to the most important sacred sites, e.g. from Lamia through Pharosalos and Larissa to Olympus or via Pydna to Macedonia. There was another from Athens to Oropos, Thebes and Delphi, and another from Elis to Olympia. Athens was connected to Corinth via Eleusis and from the 8th century BCE was an important transshipment point from and to the Peloponnese for certain goods (Strabon 8, 378).

From the 8th/7th century BCE, exchange and traffic experienced a certain revival. Cities such as Chalcis, Eretria, Megara and Corinth in Greece and Miletus in Asia Minor became the starting points of the second Greek colonization. Corinth, geographically favorably situated on an isthmus, was the first Greek polis to turn to shipbuilding and seafaring. The construction of a remarkable transportation system enabled ships to glide from the Aegean into the Ionian Sea and avoid the long journey around the Peloponnese. They were pushed across the Isthmus on a 7.4 km-long slideway on sledges that ran in a wet channel. Aigina also profited from shipbuilding and became an important maritime power. Access to the sea was secured by harbor dams.

Trade relations developed between mother and daughter cities, which contributed significantly to the increase in the movement of goods. New areas were included in the trade traffic, as the Greeks in the colonies made contact with tribes and areas in the interior of the country. Starting from Olbia and Tanais, [408] they reached the areas north of the Chersones; from the coast of Asia Minor, traffic routes went north and into the interior of the peninsula; Massalia in the west became the end point of various local and long-distance trade routes, which came from the north by land or by sea (Iberian Peninsula). Similar to the Peloponnese, Corinth developed into the main gateway to the southern Italian and Sicilian Greek cities thanks to its naval power. Archaeological finds show that Corinthian amphorae for wine and oil reached the Italic region and Massalia. Other Greek cities, such as Aigina, also produced pottery. On the other hand, grain had to be imported above all to feed the population, as well as slaves, metals (Cypriot copper), wood (overland, especially from Macedonia) and other raw materials. With the spatial expansion of maritime traffic, conveniently located transshipment points such as Chios and Delos (slave trade) developed into traffic centers in the Aegean. Voyages were made from cities in Asia Minor via Lesbos or Samos and Euboea as well as from Rhodes and Cyprus via the Cyclades to Greece. Ships sailed to Naukratis, the gateway to Egypt, via Crete and Cyrene, and to Massalia via the southern Italian and Sicilian ports.

Greek cities. However, the Greeks increasingly came up against Carthaginian and Etruscan competition in the western Mediterranean. With the help of its strong fleet, Carthage asserted itself from the 6th century BC.

The Etruscans were responsible for maritime trade relations between their North African territory, Sardinia, Corsica, eastern Sicily and southern Spain. Etruscan cities, at times allied with Carthage, dominated trade in northern and central Italy and the Tyrrhenian Sea.

The steady growth of local and long-distance trade since Greek colonization is illustrated by the range of goods on offer at the markets of the leading Greek poleis. In addition to local produce (fruit, vegetables, oil, wine, meat products), various long-distance goods were sold: everyday items, slaves, raw materials, industrial goods and luxury goods. Of particular importance was the import of grain, including from the Black Sea region, the fertile areas of Asia Minor, Sicily, Italy, Egypt and Cyrene. Wine and oil came from Italy (via Sybaris, Kyme, Kroton, Tarentum, among others), from the islands of Lesbos and Chios, from various parts of Asia Minor and (also hides and skins) from the area north of the Black Sea, along with other agricultural products. Important raw materials were: various metals, which came from Cyprus (copper), Samos, Lesbos, Lydia, at times also from Britain (tin), as well as marble (e.g. from the island of Paros); wood for shipbuilding was supplied by Macedonia, Cilicia, Pontus (maple, boxwood), papyrus from Egypt, wool e.g. from Miletus, Laodicea as well as Italian cities and much more. Finished goods were also imported, such as metal and leather articles, fabrics and many other handicraft products, as well as salves, perfumes (Orient, Cyrene), spices (saffron, silphion from Cyrene), glassware (Egypt).

After the Greco-Persian wars, all trade and commercial centers were overrun by Athens. Thanks to its fleet and its position of power in the Del-Attic League, Athens temporarily gained a monopoly position in the Black Sea trade. Special treaties were concluded with the Bosphoran Empire for the purchase of grain. Macedonian timber, indispensable for naval construction, was supplied to Athens alone. In 457 BCE, Aigina and Megara were eliminated as competitors. With its increased influence on trade in western areas, Athens came into strong competition with Corinth. Attic tetradrachms became the common currency in the Aegean, in Cyrene and partly in Sicilian and Italic Greek cities. Athens' supremacy over members of the League of the Sea yielded 6,000 talents a year (1 talent equals 26.2 kg of silver). On the eve of the [409] Peloponnesian War, reserves of 6,000 talents were available, a multiple of what was available to other poleis. Based on this economic and military supremacy, Athens was able to force its allies to call at Piraeus, which had been developed into a large port with shipyards, warehouses, dockyards, etc. Connected to Athens, 7.5 km away, by the "Long Walls", Piraeus with its three harbor bays became a port city in the 5th century BCE, where not only many merchants but also tradesmen had their residence. Through Piraeus, the Athenians were able to enjoy the products of other peoples as their own (Thucydides 2.37). In addition to local products (pottery, metalwork, fabrics, wines, fruit, animal products), products from many parts of Greece or overseas were purchased (salt fish, mackerel, meat products, Egyptian beans, pears from Euboea, figs from Rhodes, Phoenician dates, carpets and pillows from Carthage, etc.). Athens became the most important trading hub where goods could be bought and sold. Some of the goods were simply passed on from here, for example about a third of the incoming wheat. [8: 98] In addition to professional traders, there were all kinds of local junk dealers as sellers, as well as farmers and tradesmen from various regions, even women who offered their own products and produce (flowers, haberdashery, etc.). The market police and market supervisors ensured that valid weights and measures were used.

Geographically very favorably situated, Piraeus also attracted numerous foreigners. As immigrants, they were rarely able to become citizens of the polis, but their activities increased the wealth of Athens. They also took part in long-distance trade. Wealthy Athenians, on the other hand, no longer sailed themselves, but financed ventures by poorer full citizens to promote trade (Isocrates 7, 32 ff.; Plutarch, Pericles 12). With the increasing penetration of foreigners (metöks)

Athenian citizens were increasingly squeezed out of trade. In the 4th century BCE, only 11 Athenians are known to have gone to sea, some of them impoverished former landowners. [5: 473 f., 482] In many Greek poleis, trading became a profession that was not respected. In Thebes, only citizens who had not traded for a long time were allowed to hold magistrate positions. Later, in Rome, it was forbidden to reputable people at all (*lex Claudia*, 218 BCE).

Even after the defeat of Athens in the Peloponnesian War, Athens' position was initially not permanently weakened. For the period around 400 BCE, its import and export turnover was still calculated at 2,000 talents per year. [17: 362, 366] But various conflicts in the Greek region weakened the previously leading Greek poleis. The unification of larger areas did not succeed. The narrowness of the poleis became an obstacle to further development. In other areas of Greece (e.g. in the northwest), the ancient mode of production prevailed and they gained increasing economic and commercial importance. As a result, trade and transportation gradually turned in other directions. Some hubs, such as Rhodes, were used more frequently than before.

Under *Hellenism*, the individual Greek poleis were territorially integrated into the great empires. Trade and transportation benefited from the opportunities offered by the vast areas over which the Hellenistic states extended. The western Mediterranean was more closely integrated than before. New centers of gravity emerged in the eastern Mediterranean basin. They were joined by wide overland routes from Syria and Mesopotamia via Iran to India and China, which were now open to the trade in Hellenist goods. Numerous cities were founded under Alexander of Macedonia and [410] his first successors, promoting trade and commerce. Alexandria in Egypt, for example, became the crossroads of many connections in the eastern Mediterranean. Routes from Inner Egypt, Sudan etc. led from here to Cyrene or to Syria and Rhodes, to the Aegean and the Black Sea via Byzantium.

Further impetus was provided by the minting of the treasures of the Persian Empire and the promotion of important transportation structures, such as the completion of the canal between the Nile and the Red Sea. In contrast to the height of Athenian polis-democracy, where the state had no direct influence on the initiative of individuals or trade cooperatives, in Hellenism it often had to intervene in production and trade. Although the products were produced privately, the government bought them at fixed prices and had them distributed by traders on a leasehold basis. In Egypt, such state purchase monopolies existed for oil, salt, hides, hemp and papyrus, among others. As the government prohibited the import of such products for sale, the domestic price could be kept higher than on markets with free trade. In 259 BCE, for example, 39 1 oil cost 52 drachmas in Egypt and only 18 drachmas on Delos [14: 181 f.] Numerous wars were fought for trade policy reasons, e.g. between Syria and Egypt over the Syrian ports of Antiocheia, Pieria and Apameia. The conquest of the island of Cyprus was important to the Ptolemies because of its copper deposits. Antiochus III's campaign mainly served to restore economic links between Syria and the Persian Gulf.

The main products were precious woods from inner Africa, shipbuilding timber (Macedonia, Thrace, Italy, Cilicia, Pontos via Amisos and Sinope, Lebanon), Arab incense, ivory, pearls, diamonds and precious stones, which reached the Persian Gulf via India or the Bahrain Islands, as well as spices, silk and cotton. The goods were transhipped in Alexandria or transported in Mesopotamia and through the Arabian desert to the Phoenician ports or across the Euphrates to Cilicia, Miletus or Ephesus in the Aegean region. In addition, many products were traded in the same way as in Greek times.

Little is known about trade in Rome before the middle of the 3rd century BCE. Insofar as long-distance trade was not handled by southern Italian Greek cities, it was in Etruscan or Carthaginian hands. The treaties with Rhodes (306 BCE) and the Ptolemaic Empire (273 BCE) offered Rome its first opportunities to participate in Mediterranean trade. However, it was only with the expansion after the 2nd Punic War that Rome became an important trading market. In place of the destroyed

Roman ships controlled trade and traffic in the western Mediterranean from the 2nd century BC onwards, replacing the Carthaginian fleet. By conquering the southern Italian and Sicilian Greek cities and pushing back the Hellenistic states, Rome succeeded them and had also become the dominant trading power in the eastern region. The Roman denarius established itself in the middle of the 2nd century.

BCE as the main currency in Italy, and in the 1st century BCE in the entire Mediterranean region. Especially the Apennine Peninsula as the core area, from the 1st century BCE also the Iberian Peninsula and later also southern Gaul became important import and export areas with the development of the monetary economy. As many products were produced there themselves, imports from eastern territories declined considerably in comparison to Hellenism. This applied to various agricultural products, including meat and fish products, olive oil and grain from the Black Sea region. They were only sold regionally. Even the growing demand for grain in Italian cities was met by imports from Sicily, Sardinia, North Africa and Spain. The trend was similar for metals and building materials from the eastern Mediterranean countries. They were replaced by Spain, the [411] islands of Sardinia and Elba, the Alpine regions and, increasingly, Britain. Italy and Corsica supplied marble, cement earth and wood. Apart from particularly high-quality varieties, Italy and Sicily produced sufficient wool. Italian agricultural and handicraft products, on the other hand, conquered new markets. Terra sigillata was exported as far as the Orient, as was cheap pottery. Pitch and resin for shipbuilding (Noricum, Spain, the Balkans, the Black Sea countries), hemp, flax (Pontus), wax (Corsica, Spain, Pontus), papyrus (Egypt) and slaves (sources besides Delos: Tanais, Byzantium, Rhodes, Puteoli, Narbo, Arelate) were also important long-distance trade products in the Roman Empire. Luxury goods were obtained from the Orient as in Hellenism. Important land routes from Inner Asia now ended at the Syrian Mediterranean coast (rise of caravan cities such as Dura-Europos, Petra, later Palmyra). The direction of trade in the Black and Eastern Mediterranean was partly changed, for example the connections of Asia Minor with the Balkans and Italy were intensified. The exchange of goods with the Ptolemaic Empire, on the other hand, remained lively despite fluctuations. In addition to food and luxury goods and traditional Egyptian exports, Rhodian vases were imported to Egypt, as well as Lydian figs, wines from various regions, honey, nuts and oil. The exchange with the northern nomads of Eurasia via the Black Sea (Tanaïs) was maintained. Rhodes became a crossroads between the north and the south and between the eastern Mediterranean basin and the Iberian Peninsula, especially in the 3rd and 2nd centuries B.C.E. Its revenue is said to have amounted to 1 million drachmas annually (Polybios 31, 7, 12); it was replaced by Delos. After the destruction of Corinth, its market was at times able to turn over 10,000 slaves in one day. The free port lost its importance in the 1st century BCE.

However, Rome and its port became the most important port of call for trade in the late Republic. As the capital of an extensive empire (need of the largest and politically most important city until the high imperial period, main transshipment point for all goods destined for Italy), its impulses reached all provinces. Cargo ships of up to approx. 78 tons could reach the city up to the Principate (Dionysius of Halicarnassus 3, 44). Larger ships were lightered and pulled to the city by oxen or unloaded in Ostia. Under Claudius and Trajan, a canal was built, about 5 km long and 1.5 m deep. Roads led from Rome along the coast and into the interior.

The development of Italian inland transportation routes began as early as the 4th century BCE, albeit initially for mainly military reasons, such as the Via Appia. Other important routes were: Via Aemilia, Via Flaminia, Via Aurelia. In imperial times, the Roman road network formed a seamless system between the provinces and the capital. Good roads led from Rome to the Danube, Byzantium, Athens or Gaul and Britain, as well as from the Danube regions and the Balkans to Thrace and Asia Minor with connections to Mesopotamia or via Syria to the Nile. In every region there were access roads leading from the main routes into the interior of the country. Three routes alone led over the Pyrenees, one Alpine pass to Tergeste. Equally receptive roads opened up Armenia and the Arabian Desert (Petra). It is said that pack animals covered 60-75 km per day, pedestrians 40, couriers over 100 and express wagons up to 300 km. These figures illustrate the achievements of Roman road construction. Roman ships were also more efficient than Greek ships. Barges with a capacity of 2,000 amphorae are known (Cicero, Epistulae

ad familiares 12, 15, 2), also of 3,000, whereby an amphora could hold around 20-25 kg of grain. On average, merchant ships had a load capacity of between 50 and 80 tons, rarely over 100 tons. [11: 922] [13: 505] A carrying capacity of around 13.5 tons was calculated for Greek ships, but larger ones of around 26.5 tons are also known. [11: 921] **[412]**

The speeds are disputed. In early Greek times, it took five days to travel from Crete to Egypt (Homer, *Odyssey* 14, 252 ff.) and three days from Lesbos to Argos (Homer, *Odyssey* 3, 180). For later times, a distance of 7.8 km per hour was calculated. [13: 506] In Roman times, ships sailed from the strait of Sicily to Puteoli in favorable conditions in one day, from Puteoli to Corinth in just under five days and from Athens to Byzantium in four days. Shipping was always suspended between November and March.

The late Principate is characterized by the commercial boom of the provinces, combined with the growing importance of the cities there. Thanks to their natural wealth and old commercial traditions, they gained the upper hand over Italy. The attempt by the state to have only Italian wine produced and traded, for example, failed (second half of the 1st century). Increasing demand for cheap mass-produced goods, which displaced high-quality special items (ceramics, fabrics, etc.), led to the decentralization of production. This gave impetus to regional domestic trade, as did the supply of the army in the provinces. This also applied to Danube trade with Germanic and Sarmatian tribes. Market places were set up in the immediate vicinity of the borders of the Roman Empire, but it is not certain which products were exchanged. Only slaves are known to have been sold to the empire. [16: 125]

The economic crisis of the 3rd century led to a radical devaluation of money. The tendency towards a natural economy also had a detrimental effect on trade. The exempt territories, the large estates under the sole control of their owners, were able to cover most of their daily needs through their own production, which led to a decline in domestic trade in particular. Such economies also often had their own merchants and means of transportation. However, this largely only applied to the western provinces. This differing development was ultimately one of the reasons for the final division of the empire in 395.

Overall, however, frequent state intervention in trade, traffic and transportation did not bring about the desired restoration of the economy. Certainly, state transport had not lost its importance; on the contrary, it was given additional tasks due to increasing transportation for the army. However, a heavy burden for communities and private individuals alike was the right to confiscate carriages from anyone and demand funds for road maintenance in the absence of state-owned vehicles. The impotence of local administrative bodies was often unable to prevent the gradual deterioration of the road network from the 3rd century onwards, especially in the western provinces.

Under these circumstances, some of the reforms that took place in the Dominate (including the stabilization of the gold currency through the introduction of the solidus) only partially improved the conditions for trade and transport. Trade recovered in the Near East and the Balkans despite the destruction of some hubs (Palmyra, Ephesus) and the relocation of trade routes from the coast to the safer interior (Asia Minor). This is also evidenced by the establishment of merchants from the Roman Empire in the long-distance trading countries (India, Persia, Ethiopia). The cities in the eastern provinces remained the mainstays of trade, but the focus was now increasingly on the luxury sector (Indian and Chinese carpets, silks, porcelain, Siberian furs, etc.) in addition to a few raw materials (British tin) and consumer goods. It is run by traders who are united in compulsory corporations (similar to all trades) and are formally recognized by the state as the largest buyer of goods (e.g. supplying the army). The individual trader has **[413]** been largely suppressed. There were state monopolies on various products, especially imports such as silk (4th century).

The character of trade changed even more in the western regions. The movement of goods was merely an offshoot of the late antique tradition. Thriving cities such as Trier, with 60,000

inhabitants in the 4th century [18: 16] and a few others in Gaul, on the Danube, Moselle and Rhine are among the exceptions. Many cities only retained importance as administrative centers, no longer as hubs for trade and commerce. With their decline, the circle of customers for goods traffic dwindled and with it its volume. Until the 6th century, some commercial products from Gaul still found buyers alongside high-quality Rhenish glassware and wines [18: 17]; conversely, Arabian merchants arranged a relatively lively trade within the Mediterranean basin, which also reached Gaul and the Rhine-Moselle region via *Mas-silia* and Italy. It was partly promoted by German states on the territory of the former Western Roman Empire: As soon as political stability was achieved, they often took over the economic conditions in the areas they had conquered. However, trade then almost invariably only served to satisfy the needs of the ruling class (increasingly also ecclesiastical institutions) for products that could not be grown or produced in their own economies.

Literature:

1 *Aymard, A./Gschnitzer, P.*, in: *Historia Mundi*, vol. 4, Bern 1956, p. 53 ff; 2 *Boriskovskaja, S. P.*, in: *WZR* 1967 (16) p. 425 ff.; 3. *Clavel-Lévêque M.*, in: *Hell. Pol.*, vol. 2, p. 855 et seq.; 4. *Conrad, J.*, in: *Das Altertum* 1971 (17), p. 150 ff.; 5. *Erxleben, E.*, in: *Hell. Pol.*, vol. 1, p. 460 ff.; 6. *Gabler, D.*, in: *Romans and Germanic tribes in Central Europe*. Berlin 1975, p. 87 ff.; 7. *Gummerus, R.*, in: *RE*, vol. 2, sp. 1.381 ff.; 8. *Hasebroek, J.*: *Staat und Handel im alten Griechenland*. Hildesheim 1966; 9. *Heichelheim, F. M.*, in: *Historia Mundi*. Vol. 4, Bern 1956, p. 397 ff.; 10. *Ders.*: *Wirtschaftsgeschichte des Altertums*. Bd. 3, Leiden 1938; 11. *Miltner, F.*, in: *RE*, Supplbd. 5, Sp. 906 f.; 12. *Musiolek, P.*, in: *EAZ* 1974 (15), p. 75 ff.; 13. *Neuburger, A.*: *Die Technik des Altertums*. Leipzig 1919; 14. *Ranowitzsch, A. B.*: *Hellenism and its historical role*. Berlin 1958; 15. *Rostovtzeff, M.*: *Ge-sellschafts- und Wirtschaftsgeschichte der hellenistischen Welt*. Vol. 3, Darmstadt 1956; 16. *Schlette, F.*, in: *Römer und Germanen in Mitteleuropa*. Berlin 1975, p. 123 ff.; 17. *Speck, E.*: *Handelsge-schichte des Altertums*, vol. 2, Leipzig 1901; 18. *Vercauteren, F.*, in: *Blätter für deutsche Landesge-schichte* 1962 (98), p. 12 ff.

Hagen Fischer

2.3.6 Crafts

With the onset of the 1st millennium BCE, independent crafts gradually began to separate from agriculture in the Greco-Roman world [23: 29 ff.] [29: 153]. The division of production into two main spheres, the second great social division of labor [MEW 21: 159], was linked to certain preconditions - peasant private property, increased production in agriculture, class formation. [24: 251 ff.] The progressive separation corresponded to increasing exchange relations between the two main spheres of production. What is significant for the evaluation of ancient craft history, however, is that there was a unified economic and social structure.

[414] social history. The economy - and thus also craftsmanship - developed very unevenly in the various landscapes, poleis and time periods. Thus, throughout antiquity, there were always different and differently developed production capacities and economic structures in the individual regions and states.

The obscure beginnings of craftsmanship and the tradesmen's striving for social recognition led to myths and the assistance of the gods also being claimed for craftsmanship at an early stage. Important inventions were associated with gods and heroes, who soon became patron saints or the epitome of a skilled, inventive craftsman (e.g. Hephaestus/Vulcanus; Athena/Minerva; Vesta; Daidalos). The development of ancient commodity production was closely linked to the emergence of settlements and cities, which became centers of developed craft production and trade. Marx characterizes this transitional phase as follows: "Concentration in the city with land as territory; small-scale agriculture working for immediate consumption; manufacture as a domestic secondary trade of women and daughters (spinning and weaving) or only independent in some branches (*fabri* etc.)." [MGr 379] As in agriculture, the non-agricultural sector was also characterized by

production, the independent small enterprise was the typical form of organization: "The small peasant economy and the independent craft enterprise ... formed at the same time the economic basis of the classical communities at their best ... before the slavery of production took serious hold." [MEW 23: 354, note 24] Ancient industrial production essentially did not advance beyond this stage, that of manual labor. Marx recognized a phenomenon typical of antiquity as the most important reason for this: the accumulation of treasure instead of productive use, the non-conversion of surplus product into capital. [MEW 26, 2: 529] It also follows from the facts characterized by Marx that the widespread tendency in bourgeois scholarship to speak of capitalist relations in antiquity is a falsification of history, since in antiquity "producing capital on the basis of manufacture or large-scale industry never became dominant and social relations were thus shaped by it" [19: 75] (see [4: 71 ff.]). With the increased use of slaves in industrial production as well, larger economic units emerged in Greece and Rome alongside the small businesses; however, these remained handicraft businesses in character, as the intensified use of slaves inhibited the development of more productive means of labor. [5: 99]

In the early Greek period, the *oikos* economy was the rule, with the aim of meeting needs through self-sufficiency as far as possible. Thus, manual work was still essentially commercial ancillary work in a non-profit-oriented household economy and was not yet restricted to a socially defined group of people. [13: 42 f.] The epic does not know a term corresponding to the word craft, the terms for the craftsman in Greek: *demiurgos*, *banausos*, *cheirotechnites*, in Latin: *artifex*, *opifex*, *faber*, *confector*, *structor* (discussion of the terms [23: 22 ff.]). Homer mentions a number of independent trades - the blacksmith, the carpenter, the ship and chariot builder, the leather worker and a group that works with precious materials (ivory, gold, silver, bronze and horn workers), but he names them on a par with professions such as doctor, singer, seer, herald, messenger, ferryman, fisherman, beggar and juggler. [10: 25] [12: vol. 1, 263] Developed specialization in craftsmanship, as attested for example by the magnificent Attic [415] funerary amphorae of the 8th century BCE, was the exception in the early Greek period. The division of labour and specialization remained at a simple level. This becomes clear from the range of activities of the three types of crafts that were considered to be the oldest and most important: *chalkeus* (metalworker), *tekton* and *skytotomos* (leatherworker). The term *tekton*, for example, referred to all those who worked in stone, bone and wood, and thus applied to the stonemason as well as the carpenter, the joiner, the wheelwright, the shipbuilder or the ivory carver. Only the blacksmith is emphasized in Homer and Hesiod in terms of prestige and importance; he appears first as an independent craftsman working in his own workshop. [9: 138] [12: vol. 1, 264] Otherwise, the independent craft is only weakly distinguished from the self-sufficient estate and household economy. It is therefore disputed, for example, whether the high-quality geometric vases were still produced within the estate economy or whether they were already made by independent craftsmen. [10: 152] [12: vol. 1, 264 ff.] From the 7th century BCE onwards, artisanal production and trade steadily gained in importance, but this development remained limited to a few centers (e.g. Corinth) and production areas. Potters and shipbuilders as well as leatherworkers and craftsmen became more prominent as independent trades. The furniture depicted on vase paintings reflects the high level of wood-turning technology. The best evidence from archaeological material is the rise of the pottery trade (outstanding: Corinth 7th century; Athens 6th-4th century BCE). Potters and vase painters often signed their work. Corinthian clay tablets and Attic vase paintings show workshops or sections of workshops and convey impressions of the nature of the workshops (*ergasteries*) of various trades (including blacksmiths, shoemakers, carpenters, potters, ore casters, joiners, wood carvers, sculptors, stonemasons) and the way work was organized. Some communities, such as Corinth, Athens and Samos, are known to have sought to attract craftsmen and activate trade and industry through targeted measures. As free non-citizens, even those living permanently in one place, were prohibited from acquiring land, they were directed towards non-agricultural production areas and trade. Thus, from the 6th century BCE at the latest, craftsmen were also

citizens and free non-citizens were active everywhere. Their political and legal status changed from polis to polis. In Sparta and Thebes, even full citizens were prohibited from working as craftsmen. According to Herodotus, the craftsmen in Corinth were "the least despised" (Herodotus 2, 67).

The heyday of craftsmanship in Greece was in the 5th and 4th centuries BCE. It was characterized by a pronounced occupational specialization and division of labour, a differentiation that found expression in a wealth of characteristic job titles. [9: 1415 ff.] [12: vol. 2, 97 ff.] [19: 79 f.] In the case of blacksmiths, for example, a distinction was made not only between goldsmiths, silversmiths, coppersmiths and ironsmiths, but also within these differentiations, such as armourers, helmet smiths, shield smiths, etc. (compilation of known metal artefacts). (Compilation of the known metalworking professions [30: 122 ff.]). In leatherworking, not only did the tanning trade separate from the shoemaking trade [16: 51 ff.], but the latter also differentiated itself into the shoemaker and the shoe maker [16: 41 ff.]; with the saddler, the halter and shield maker, further trades with their own workshops also became independent. The occupations most strongly affected by this differentiation were those covered by the term *tekton*. The wood, ivory, horn and stone working branches of production became independent. In woodworking, carpenters, cabinetmakers, joiners and shipbuilders now appeared as specialized craftsmen, which in turn were subdivided into [416] were characterized by a focus on the manufacture of certain products such as *klinopoioi* (bed makers) etc. The separation of the artistic professions (sculptors, woodcarvers, etc.) from the basic trades was completed in the 6th century BCE, insofar as this had not already taken place. The expansion of professional specialization took place on the basis of the *ergasterion*. There were differences in the size of businesses and the intensity of production within and between the various trades. In addition to the one-man workshops, there were small and medium-sized enterprises, as shown by the workshop images on Attic vases of the late 6th and early 5th century BCE, e.g. in the ceramic and bronze foundry trades with 6-12 employees [2: 79 ff.], and a few larger ergasteries of the kind owned, for example, by the father of Demosthenes (Demosthenes 17; 9; 27, 9 ff.), who employed 32 cutlers in one *ergasterion* and 20 carpenters in another [6: 379] [25: 108].

In the 5th century BCE, the production of goods received a significant boost primarily through the intensified use of slaves. The competition from slave labor was not able to displace free craftsmanship, but it put small producers in constant danger of impoverishment. The apophora system also intervened more deeply in the life of craftsmen, in particular through the practice of allowing slaves to work independently in return for a fixed amount of money. In general, from then on, the craft industry presented an extremely differentiated picture in terms of the size of businesses, the level of production and the division of labour, as well as the strong differentiation within the polities, free non-citizens, freedmen and slaves working in the craft industry.

The development of commodity production only took place in the context of the city that dominated the territory of the polis. This becomes clear in Xe-nophon's characterization of the division of labour: "In small towns, the same man makes the bed, door, plough, table, and often also builds the houses, and is happy if this gives him enough customers to earn a living. In the big cities, on the other hand, because of the increased sales, every hand-

"The craftsman has a single trade for a living, and often not even a whole one, but one makes men's shoes, the other women's shoes, indeed sometimes one makes a living merely by cutting the leather, the other sews it together, one only cuts the skirts, the other sews the cut pieces together". (Xenophon, Cyropaedia 7,2,5)

For a long time, the interpenetration of domestic economy and professional craftsmanship remained characteristic of two branches of industry: the textile and food industries. The preparation of the most important raw materials - wool, linen from flax, goat's hair and, later and in terms of importance, cotton and silk - for final production was almost exclusively the responsibility of female family members throughout the Mediterranean region. It was only at the next stage of processing that craftsmanship came into play. The processing of raw materials and semi-finished products in ergasteries took place primarily for products for which there was an increased demand.

existed. In Athens, this was particularly true in the textile industry for ship equipment, where the linen weaving mills had to cover the needs of the large war and merchant fleet for sails and other by-products of linen manufacture such as ropes and cordage. [6: 381 ff.] Greek clothing, on the other hand, was usually made by women in the home. It was not until the advanced 5th century BCE that professional craftsmanship began to gain a foothold here too. There were a number of transitional forms, from mere housekeeping with the occasional sale of surplus production on the market to the deliberate exploitation of idle labor in the household for clothing production geared to market sales (Xenophon, *Memorabilia* 2, 7, 12). As in the other trades, professional specialization became increasingly important in the textile[417] trade, with the emergence of specialists such as the colourful weaver and knitter and the focus on the production of individual garments (*chlamydo-, chlanido-, exomidopoiia*).

We hardly hear anything about independent professions in the food industry; they gradually developed with the growth of the urban population and the refinement of urban living habits. Hand mills have been known since the 5th century BC. They were usually combined with a bakery. The cook, who worked for wages, not only had to master the art of cooking, but also had to be familiar with the bakery and butchery trades, an indication of how little specialization had progressed in these areas. [4: 137 f.]

The trend towards specialization [12: vol. 3, 132 ff.] [22: vol. 3, 962 ff.] also continued during the Hellenistic period, particularly in the textile and food trades, which were now increasingly detached from the domestic economy, and in the leather trade. New areas of production, such as glassmaking, were added, while others underwent changes, such as the pottery trade with the emergence of relief ceramics. However, the step from specialization to mechanization did not take place. Although the number of slaves employed in the ergasteries increased, the free craftsman remained the determining factor in the production of industrial goods as a whole. The picture presented by the various trades became even more diverse. The traditional forms of business and organization were joined by the large-scale gasteries of the Hellenistic period. From then on, the kings of the monarchies reserved a monopoly right for a number of products in order to meet the needs of the court, army and administration, e.g. in Ptolemaic Egypt for papyrus, leather and textile products. In the state workshops, the craftsmen worked on the basis of labor contracts; the temple workshops and independent workshops were subject to state regulations, but could also work for the market beyond this framework. The trade associations that emerged at this time, which were primarily associations with religious and social objectives, were used to carry out state tasks at predetermined prices.

In Rome, the forced development of crafts began in the 3rd century BCE. For the preceding period, archaeological and literary sources attest to the existence of an independent craft industry, which, however, was little differentiated and specialized in accordance with the predominantly agrarian economic structure with little surplus production for markets and was under Etruscan and Greek influence for a long time. [23: 55 ff.] The Roman tradition linked the development of some artisan associations with the royal period. [23: 74 ff.] From the 5th century BCE onwards, but undoubtedly existing even earlier, the trades of flute players, gold and bronze smiths, craftsmen in stone, wood and metal (*fabri*), dyers, leather workers, walkers and potters can be traced. In the early Middle Ages, the term *fabri* was still used for all those who mainly worked with hard materials [12: vol. 2, 140], i.e. for the blacksmith as well as for the carpenter or builder. Later, in the course of the differentiation process, clearly characterizing occupational designations were created by adding the material (e.g. *faber aerarius* = copper and bronze smith). The grouping of the individual occupational groups into colleges was primarily carried out with regard to military equipment or deployment in military service, a phenomenon that we do not know in this form from Greece, although special troops of craftsmen, especially builders and carpenters, were also formed there during military campaigns (e.g. the Sicilian Expedition). (Thucydides 6, 44, 1; 7, 43, 2) The penetration of the Romans into the Hellenistic-Greek world, the [418] Getting to know and adopting the forms and techniques of production practiced there, which

The enslavement of able-bodied people from the conquered countries and their deployment in Italy, the growing needs of the army and the cities, etc. led to a rapid development in the crafts sector.

In addition to specialization, division of labour and cooperation in the workshops, a territorial orientation of production also developed, based on the respective raw material base. [14: 158 ff.] [20: 180 ff.] There were production centers that were known for the quality of their products. Cato (234-149 BCE) recommended buying the products of artisanal stock production [9: 1453] in neighboring cities for the estate economy: in Rome clothing, hoes, ploughs, barrels, silk; in Cales or Minturnae iron tools; in Pompeii oil presses, nails and baskets, etc. (Cato, *De agri cultura* 135) On the medium-sized estates managed by slaves, professionally trained craftsmen were generally not employed. Craftsmen working for daily wages carried out the tasks that could not be performed by the estate staff. [9: 1447 f.]

In the urban trades, the small business of the freeborn predominated. Only in the building trade did public contracts require larger operating units. [9: 1452] With the development of commodity-money relations and the increased use of artisan slaves, a more intensive differentiation also began in the crafts. Craft slaves were in demand and were highly paid. (Plutarch, *Crassus* 2) [28: 107]

The efforts of the latifundia and lavish urban households to provide themselves with their own artisan slaves seems at first to have hardly hindered the development of free urban crafts. However, it was not only the trained slaves, freedmen and free men (builders, blacksmiths, carpenters, etc.) who were employed on the large private and state estates. In addition, there was the production of mass-produced ceramic, textile and leather goods using the available raw materials. [9: 1455 ff.] [28: 108] With the increasing importance of these production centers, urban and rural craftsmen became equal to one another from the imperial period onwards.

With the development of urban life in Italy, products such as clothing and footwear, which had previously been made primarily in the home, were also produced by professional specialists. Augustus' attempt to revive the old custom of weaving in the home was unsuccessful despite his own example. [14: 157] The growing need for luxury and prestige among the upper classes increased professional specialization in the textile industry and in leather processing. In the food industry, the professions of baker and butcher replaced that of cook. [9: 1447] [12: Vol. 3, 135 ff.] It soon became common practice in the towns to buy bread from the baker, who was also a miller. The uncovered private houses in Pompeii no longer contain any mills and only rarely any ovens. The 40 or so bakeries excavated show that a bakery may have supplied between 550-700 inhabitants. [27: 89] From the middle of the 3rd century BCE, a large number of professional associations emerged in Italy. They were not founded by chance, but were closely linked to the process of independence of the crafts, through which a significant part of the population outgrew the influence of the family and thus its cults, traditions, etc. [28: 120 f.]. [28: 120 f.] Above all, social and religious objectives played a role in the corporations. In the cooperatives, which were democratically structured, elected their own officials, etc., the craftsman was able to realize what was not possible for him in the community. Recognized by the state and often granted privileges on account of their highly important services to the community, the professional associations played an important role in the 1st century.

BCE played an active role as a body in the social and political struggles of the urban plebs and were therefore banned at times and even partially dissolved by Caesar.

Italian craftsmanship flourished in the late Republic and early Imperial period. It was above all the independent urban professions that benefited from the growth of the cities, as numerous monuments related to the trades testify. [12: vol. 2, 249] This was particularly true of the building trade. The construction of the numerous public and private buildings - temples, palaces, villas, urban tenements, streets, bridges, etc. - required a large number of skilled craftsmen.

Rome and the Italic cities profited equally from the numerous craftsmen coming to Italy from the former Hellenistic monarchies - which inevitably led to a gradual reduction in economic density in the older cultural areas [12: vol. 3, 250]. Taken as a whole, what was already characteristic of Athenian handicraft production at its peak [6: 365] [26: 202 ff.] also applies to Italic handicraft production: apart from a few exceptions of mass-produced articles and luxury goods, it did not go beyond the local market. Only where sea or river transport was possible or a well-developed road network could be used did sales extend over longer distances. [9: 1453] Thus in the 1st century, apart from terra sigillata, glass and metalware production, there were no mass-produced goods that appeared on the product markets on a large scale, and they too were soon displaced by domestic production.

In the western and northern provinces of the Roman Empire, the assimilation to the general level of production did not take place until the 1st and 2nd centuries. As the tribes settling there, such as the Celts and the Germanic tribes, were still in the phase of the dissolution of primitive society when they were subjugated, the crafts in these areas were also initially inferior to the Italic crafts in terms of the level of technology and organization. However, the relatively simple technical processes could be passed on to the various parts of the empire by experienced urban and village craftsmen. The structure and scope of provincial Roman craftsmanship was shaped both by the intensity of Romanization and by the specific character of economic life in the respective areas. In Dacia, for example, gold and salt mining dominated, while crafts and trade were only slightly developed, whereas in Gaul and the Rhine regions, crafts began to flourish. [32: 189 ff.] Apart from the ownership structures in agriculture and their effects on the craft production facilities on the larger estates, the founding of Roman towns was of decisive importance, as all branches of the crafts were generally represented in the towns of the Imperium Romanum. Urbanization was closely linked to the development of ancient production methods, with specific characteristics resulting from the synthesis of local property relations and traditions as well as forms of production based on slavery. The diverse needs of the army, a large number of civil servants and the growing demands of the local market formed the basis for the rise of craftsmanship in the western and northern provinces of the Roman Empire.

The increasing economic independence of the provinces and the simultaneous decline of Italy's special economic and political position meant that the upswing, stagnation and decline of craftsmanship in the Roman Empire were closely linked. The decline in the number of slaves, the increase in large estates and the onset of the crisis led to profound [420] changes in the crafts sector from the 2nd century onwards and even more so from the 3rd century onwards. With the expansion of the colonate, i.e. the transformation of large-scale agricultural production into small-scale production, the level of the social division of labor in the cities also decreased. [26: 193] The craft production capacities already available on the large estates were steadily expanded and began to surpass the impoverished urban crafts in importance from the 3rd century onwards. [12: vol. 3, 250] The crisis of the 3rd century accelerated this development. The progressive decline of the currency caused the economy to revert to a natural economy with the exchange of goods and payment in kind. In the western provinces in particular, the cities lost their importance as centers of production. Only a few - such as Cologne and Trier - retained their prosperity for some time due to favorable factors (traffic situation, residences, etc.). From the 2nd century onwards, the state was forced to set up its own workshops (fabricae) to meet the needs of the army, navy, court and bureaucracy, which often employed 200-300 people and further restricted the scope of independent craftsmen. The advancing economic crisis and the decline in urban craftsmanship led the state to support the colleges by granting privileges on the one hand, and on the other to call upon the professional associations and individual craftsmen more and more to provide services and pay taxes. In the end

This development was characterized by the permanent, hereditary commitment of the craftsman to a profession and the establishment of compulsory state corporations. Craftsmen's activities became bound to the orders and regulations of the state or the great lords of the manor, with craftsmen's activities for the free market taking a back seat. The relationship between free and tied craft production began to be reversed. [12: vol. 3, 250] When the western Roman provinces were conquered in the 5th century, a large proportion of the craftsmen remained there and passed on their knowledge of the craft. [32: 321] They were preserved to an even greater extent in the cities of the Eastern Empire, especially in the late Roman-Byzantine state workshops. [12: vol. 3, 315 ff.]

Little is known about the apprenticeship system in antiquity [9: 1493 f.] [11: 83 ff.] [25]. The little that is known relates almost exclusively to the Roman period, for which the terms master (*magister*) and apprentice (*discens*, *discipulus*) are attested several times. The development and specialization of craftsmanship made solid training in the various trades necessary at an early stage. The literary tradition (Plutarch, Solon 22) [25: 204] already attributed such initiatives to Solon or the Athenian legislation of the 6th century BCE.

Like schooling, vocational training in antiquity was a private matter in which neither the state nor the professional association intervened directly. It mainly took place in small and medium-sized workshops, both for free and unfree workers. The master craftsmen and apprenticeship masters "did not train apprentices according to social requirements, but only according to their personal needs, which were determined and limited by their own business considerations. [25: 201] Two types of apprenticeship contracts are attested by papyri. [21: 85 ff.] In the first, the apprentice's work performance was a prerequisite and compensation for the master's training work. In the second, there was no benefit for the trainer during the apprenticeship. Therefore, the apprentice had to pay a fee for the teaching of skills. The apprenticeship contracts, which were usually concluded between the master and the apprentice's guardian (father, guardian, etc.), set out the objectives, rights and obligations of both parties: Stipulations about the training objective, the training period (1-5 years), maintenance (food, clothing), vacation, wage and tax payments. [421]

Literature:

- 1 *Blümner, H.*: Technologie und Terminologie der Gewerbe und Künste bei Griechen und Römern. Leipzig 1912, 2-4, 1879-1887; 2. *Burford, A.*: Craftsmen in Greek and Roman Society. London 1972; 3. *Eckstein, F.*: Handwerk. Göttingen 1974; 4. *Ehrenberg, V.*: Aristophanes und das Volk von Athen. Zurich/Stuttgart 1968; 5. *Eichhorn, W./Bauer, A./Koch, G.*: Die Dialektik von Produktivkräften und Produktionsverhältnissen. Berlin 1975; 6. *Erxleben, E.*, in: *Klio* 1975 (57), p. 365 ff.; 7. *Forbes, R. J.*: Studies in Ancient Technology. Vol. 1-9, Leiden 1964-1972; 8. *Frank, T.*: An Economic Survey of Ancient Rome. Vol. 1-4, Baltimore 1933-1940; 9. *Gummerus, H.*, in: *RE*, vol. 9, p. 1381 ff.; 10. *Hasebroek, J.*: Griechische Wirtschafts- und Gesellschaftsgeschichte bis zur Perserzeit. Tübingen 1931; 11. *Hengstl, J.*: Private Arbeitsverhältnisse freier Personen in den hellenistischen Papyri bis Diokletian. Bonn 1972; 12. *Heichelheim, F. M.*: An Ancient Economic History. Vol. 1-3, Leiden 1958-1970; 13. *Himmelman, N.*: Über bildende Kunst in der homerischen Gesellschaft. Wiesbaden 1969; 14. *Jones, A. H. M.*, in: Sozialökonomische Verhältnisse im Alten Orient und im Klassischen Altertum. Berlin 1961, p. 156 ff.; 15. *Kretzschmer, F.*: Bilddokumente römischer Technik. Düsseldorf 1958; 16. *Lau, O.*: Schuster und Schusterhandwerk in der griechisch-römischen Literatur und Kunst. Bonn 1967 (diss.); 17. *Marquardt, J.*: Das Privatleben der Römer. Vol. 2, Leipzig 1886; 18. *Murakawa, K.*, in: *Historia* 1957 (6), p. 385 ff.; 19. *Musiolek, P.*, in: *EAZ* 1974 (15), p. 75 ff.; 20. *Paoli, U. E.*: Das Leben im alten Rom. Bern/Munich 1961; 21. *Persson, A. W.*: Staat und Manufaktur im römischen Reiche. Lund 1923; 22. *Rostovtzeff, M.*: Gesellschafts- und Wirtschaftsgeschichte der hellenistischen Welt. Vol. 1-3, Darmstadt 1955-1956; 23. *Schrot, G.*: Untersuchungen zur Geschichte des Handwerks im republikanischen Rom. Leipzig 1963 (Habil.-Schrift); 24. *Ders.* in: Sozialökonomische Verhältnisse im Alten Orient und im Klassischen Altertum. Berlin 1961, p. 245 ff.; 25. *Schulz-Falkenthal, H.*, in: *Klio* 1972 (54), p. 193 ff.; 26. *Ders.* in: *JWG* 1973, T. II, p. 193 ff.; 27. *Sergeenko, M.*: Remeslenniki drevnego Rima. Leningrad 1968; 28. *Štaerman, E. M.*: Die Blütezeit

of the slave economy in the Roman Republic. Wiesbaden 1969; 29. *Welskopf, E. Ch.*: Die Produktionsverhältnisse im alten Orient und in der griechisch-römischen Antike. Berlin 1957; 30. *Wilsdorf, H.*: Bergleute und Hüttenmänner im Altertum bis zum Ausgang der römischen Republik. Berlin 1952; 31. *Wipszycka, E.*, in: Archiv für Papyrusforschung 1966 (18), p. 1 ff.; 32. *Die Römer an Rhein und Donau*. Berlin 1975.

Ernst Kluwe

2.3.7. Class relations

Ancient class society was characterized by the antagonistic contrast between slave owners and slaves as a typical production relationship as well as the private ownership of individual producers. This private property encompassed not only land ownership as the main means of production, the urban property of craftsmen and traders, but also human beings and their labor, the slaves.

Ancient class society has some special features: The first, original classes were the large and small landowners. Slavery developed as a secondary result of the class struggle between the large landowners and the small farmers and urban craftsmen. Even in [422] the later conflicts between rich, impoverished and propertyless members of the ruling classes, the struggle was primarily about expanding or maintaining land ownership and not about the ownership of slaves. In direct production, a considerable number of free people were employed as craftsmen, day laborers and wage laborers. Although they occupied the same position as slaves in terms of the technical conditions of production, they differed significantly from them. The free man who worked for wages sold his own labor, could choose his own workplace and belonged to the status of a fully entitled citizen, whereas the slave was bought along with his labor and was deprived of the rights to which a free man was entitled.

The class antagonism between slave owners and slaves existed above all in the heyday of ancient class society (from the 6th century BCE in Greece and from the 2nd century BCE to the 3rd century CE in Rome). However, this class antagonism never reached a polarization comparable to the antagonistic opposition between capitalists and proletarians. In socio-economic relations, the ancient classes were divided into distinct estates: Free and slave, full and lesser citizens of a state. These estates comprised different classes and social strata, which fought among themselves for a share of land ownership and for the extension of political rights.

The conquests emanating from the centers of ancient class society as well as diverse economic, political and cultural contacts led to ancient class society extending its sphere of influence to the coasts of the Black Sea and the Mediterranean and beyond to Britain, Germania, Gaul, Hispania, North Africa, Egypt and Syria. However, this area of influence is not identical with ancient class society or even slavery as the dominant production relationship. Ancient class society only reached full development, combined with developed commodity-money relations, in Greece, the Aegean region and Italy. Even there, ancient class society was tied to the existence of the selectively distributed poleis or municipia and colonies. Large areas, such as the parts of the Peloponnese ruled by Sparta [1], developed neither private land ownership nor slavery, but remained with forms of dependency similar to those of ancient Oriental class society. In other areas, such as Thrace, Macedonia, Dacia, Germania and Gaul, gentile organized peoples still existed, while in Egypt and Syria elements of the ancient Oriental mode of production were preserved.

The different formation of the ancient class society has led to discussions that are primarily concerned with the classification of the eastern regions [10] in the social formations. For the Greeks, who conquered the Persian Empire at the end of the 4th century BCE, the rich

Eastern territories were primarily new settlement land. For the Romans, who had been conquering the Hellenistic empires since the 3rd century BCE, these territories were also of great importance as resources for slavery and as objects of exploitation, whose surplus product, skimmed off in tributary forms, benefited the Roman citizens - albeit to extremely varying degrees. Although the ancient Oriental forms of dependency, which predominated above all in agriculture, were not eliminated, the newly founded poleis, colonies and citizen communities as the centers of traditional ancient forms of administration and life were the determining element, which explains not least the spread of ancient culture to the territories of Egypt and the Near East.

The first emergence of ancient classes on Greek soil around 1000 [423] BCE was favored by the existence of the parcel farmer as an individual peasant producer who had survived in the ancient Oriental class society of the Cretan-Mycenaean palace society. This individual producer was strengthened by the gentile organized Doric tribes who immigrated around the turn of the millennium and destroyed the castle palaces as the seat of a state apparatus of the ancient Near Eastern type.

Ancient class society emerged during the migration movement. The tribal aristocracy was transformed into a ruling social class that influenced the other tribal members economically and politically. With the growing social differentiation and the advance of private property, gentile relations were no longer the main form of social relations. As a result, tribal organization also became less important. Moreover, the contradictions between the producers, who were still bound to gentile principles, and the gentile aristocracy did not diminish but increased. In view of the growing threat from the lower social classes, the gentile aristocracy was forced to unite in a supra-regional organization that stood above the gentile ties.

The representatives of the tribal aristocracy usually took up residence in an existing settlement. These centers of artisanal production and exchange, which stood out economically from the agricultural environment and were often also the cultural center of the tribe, became political centers, places of central administration in the poleis, the city-states of the ancient class society in Greece. The urban settlement became the "seat of the countrymen". [MGr 378] In these early poleis, a personally free producer emerged for the first time, who could freely dispose of his labor, its products and his land ownership. The cultivation of plots of land by individual producers as well as distinctive craft skills could be adopted from the preceding Cretan-Mycenaean society. The free availability of products and labor now unfolded with the emergence of exchange and market relations without the hindrance of the forms of the ancient oriental palace economy.

While in the early polis, tribal members were still organized in a gentile manner and joined forces against a subordinate population or external enemies, the union of polis citizens as private property owners, which was also organized through warfare, was a consequence of the gradual development of slavery from around the 7th/6th century BCE.

The previously essential contradiction between large and small landowners continued to exist. For impoverished tribal members, however, there were new ways of earning a living in the urban centers and in the newly founded colonies an alternative option that also promised the acquisition of land ownership.

The great colonization (8th-6th century BCE) was a form of class struggle of the members of the early polis who were threatened by the gentile aristocracy, i.e. by the great owners. Their emigration and the enforced abolition of debt bondage and debt slavery to their own tribesmen created a shortage of labor in the poleis. This particularly affected the large landowners, who were dependent on other laborers after the debt servants and debt slaves were freed.

Ancient slavery began in the colonization areas. The colonists robbed or conquered the local population and used them as cheap labor to build the new

polis. "Slavery is always secondary, never original, although a necessary and consequent result of property based on the polity and labor in the polity." [MGr 395]

[424] The poleis in the colonization areas were superior to the local population in terms of production and weapons technology and were able to enslave them by force and sell them as goods to interested parties in the mother country. Although man-stealing through piracy and war remained a common practice, the Greek poleis soon took the less dangerous route of exchanging slaves from the tribes in the hinterland of the poleis for luxury products. From the middle of the 7th century BCE, a slave trade developed that supplied the other poleis with labor. The more specialized the crafts were in the polis, the more likely it was that the poleis owners would be able to procure slaves themselves and use them in production. In addition to the existing classes of large and small landowners, a new class emerged, which can be described as the urban owners. Like the class of landowners, the class of urban proprietors was also highly differentiated. It included wealthy tradesmen and tradespeople as well as craftsmen with a small family business and wage earners who could have specialized craft skills. With the development of the city as the most important economic center within the polis, the focus of slavery also shifted to the urban sphere of production.

Engels describes the connection between increased production and the use of slaves in direct production as follows: "Not everyone is served by a slave. In order to be able to use such a slave, one must have two things at one's disposal: firstly, the tools and the objects for the slave's labor, and secondly, the means for his necessary maintenance. So before slavery becomes possible, a certain level of production must have been reached and a certain degree of inequality in distribution must have occurred. And for slave labor to become the dominant mode of production of an entire society, a far greater increase in production, trade and the accumulation of wealth is required. In the old natural communities with common ownership of the land, slavery either does not exist at all or plays only a very subordinate role." [MEW 20: 149] Mobile slavery, i.e. the use of slaves in direct production, is, alongside the private property of individual producers, the decisive characteristic of ancient class society, which also distinguishes it from the preceding ancient oriental class society. Slavery in ancient class society was the exploitation of people's labour power and working with people who were forcibly mobilized and made the property of another person. The slave was also included in the commodity trade as an object of exchange and purchase and thus became a commodity himself.

The exploitation of slaves, who could be deployed anywhere and forced to work to the physical limit, led to a considerable increase in agricultural and industrial production, which in turn promoted the specialization of professions, the division of labour between town and country, between manual and manual labour and, last but not least, the expansion of the trade in goods. "Only slavery made the division of labor possible on a larger scale, and with it the blossoming of the ancient world, the Greek state. Without slavery, no Greek state, no Greek art and science; without slavery, no Roman Empire. But without the foundation of Greece and the Roman Empire, there would be no modern Europe. We should never forget that our entire economic, political and intellectual development is based on a condition in which slavery was as necessary as it was generally recognized. In this sense we are entitled to say: without ancient slavery, no modern socialism." [MEW 20: 168]

[425] These remarks by Engels are remarkable in two respects: firstly, they show - which is self-evident but sometimes forgotten - that Marx and Engels did not view history from a moralizing standpoint. Slavery was an inhumane and often torturous, but always degrading social institution. But it was historically necessary and, in a certain phase of world-historical development, a basic prerequisite for progress. Secondly, in the further course of Engels' remarks

clearly shows how the social progress achieved in ancient class society is to be categorized: "The old commonwealths, where they persisted, have for centuries formed the basis of the crudest form of government of oriental despotism from India to Russia. Only where they dissolved did the peoples advance of themselves, and their next economic progress consisted in the increase and further development of production by means of slave labor" [MEW 20: 168 f.] (see [20,1: 20 f.]).

Ancient class society emerged again around 500 BCE in the areas of Italy ruled by Rome. Here, too, the development of the ancient classes began in the struggles between large and small landowners. The constitutional equality of the plebeians with the patricians meant, as in Greece, the disempowerment of the gentil aristocracy and the assertion of private property, in particular the right to dispose of land. The conditions under which the ancient classes emerged in Rome favored their stronger development compared to Greece. Unlike in Greece, impoverished small property owners did not found new city-states in distant regions, but settled in Italy itself. They retained Roman citizenship and indirectly expanded the territory ruled from Rome. The continuing contradiction between large and small land ownership subsequently led to wars of conquest, which were repeatedly associated with the founding of Roman citizen colonies. The slaves captured in these wars could be used on the large estates in Italy and in the conquered territories, so that mass slavery in agriculture and urban manufactories occurred for the first time.

From the 2nd century BCE onwards, slave revolts, even outright slave wars such as that of Spartacus, had made clear to the ruling class the danger posed by mass slavery, especially as the tendency for impoverished free people to join forces with slaves became apparent.

Just as in Greece the spread of commodity-money relations and the exploitation of slave labor, which was particularly profitable for the rich, had led to civil wars and the dissolution of democracy, the Roman Republic reached a crisis in the 1st century BCE. The struggles of rich tradesmen and merchants on the one hand and rich landowners, farmers and the poor on the other did not, however, lead to a fragmentation of the ruling class as in Greece, but to a concentration of state power in the hands of a few. The Roman monarchy was an instrument of the ruling class with which it maintained its rule over the slaves and impoverished freemen in the interior and over the conquered territories.

From the 3rd century onwards, there were signs of crisis in ancient class society, which coincided with the decline of mobile slavery and the decline of slavery in direct production. Peoples ruled by Rome - such as the Celts, Dacians and Germanic tribes - were themselves in the process of state formation and defended themselves in wars against Roman subjugation and exploitation. However, the resulting decrease in the supply of slaves was only one cause of the decline of the ancient classes.

[426] The payments to impoverished citizens made possible by the exploitation of the subjugated territories gave rise to a kind of lumpenproletariat in the cities. This was no longer productively active, but at most formed the basis of the Roman legionaries serving for pay. Slaves who had worked for generations for their respective owners had not only adopted the language of the ruling class, but had also acquired a wide range of specialized skills in agriculture and craftsmanship, so that they no longer differed from free men in terms of education. As an incentive, many slaves were given a portion of the surplus product they produced for their personal use. They worked practically like wage laborers for wages, could buy their personal freedom or were set free by their masters. This manumission initially brought the slave owners a profit, as they no longer had to provide for the slave's makeshift upkeep. Freedmen or slaves were employed in the administration or as service personnel due to their specialist knowledge. With the

The fall of conquered territories and the invasions of foreign tribes during the migration of peoples led to a decline in the trade in goods supported by the city owners. The decline of the cities again led to a predominance of land ownership and the economy in kind, as in the early days of ancient class society. Both in the cities and in the countryside, a contradiction arose between a relative shortage of labor and a simultaneous preponderance of unproductive workers. The unproductive freemen and freedmen were accustomed to physical labor being performed by slaves and perceived such activity as slavish. [7] The ruling class attempted to counteract the relative shortage of labor through political and economic coercive measures. One political measure was the granting of Roman citizenship to all free men within the Roman Empire. This fulfilled a demand of the underprivileged, but at the same time destroyed the privileges of the individual cities as the typical citizen communities.

The large landowners had always leased shares of land to free men and given them to slaves to use in return for taxes. The colonate resulting from the land lease meant that slaves now also received a share of the land, which they worked independently as owners. However, this in no way abolished the institution of slavery. On the contrary, in the 4th and 5th centuries there were attempts by the ruling class to relegate the tenants - free and slave - to a status without rights and to force craftsmen in the cities to be bound to a specific profession.

The colonies tied to the land can be seen as a prefiguration of the feudal serfs that the Germanic and Slavic tribes became acquainted with when they conquered former Roman territory in the 4th-6th centuries. [8] However, the state apparatus, the ruling class's instrument of power, was also smashed during the warlike conquest of land. The new settlers freed the colons and slaves from any remaining economic and legal ties. Engels explains:

"Ancient slavery had disappeared, gone were the ragged poor freemen who despised labor as slavery. The free Frankish peasant had stood between the Roman colon and the new serf." [MEW 21: 149]

It was stated at the outset that in ancient society the socio-economic relationships between the basic classes of slave owners and slaves were obscured by the struggles within the estates. The division of the estates in ancient society was based on a division into legal norms, of which the upper classes claimed privileged rights - such as the right to own land and the associated full political rights. [2] [17] The most important class in the production [427] of material goods and at the same time the class that determined the production conditions was that of the slaves. However, this included not only the production slaves in agriculture and crafts, but also independently working slaves, who in turn could exploit slave labor as slave owners. The latter therefore actually belonged to the class of slave owners. In contrast to freemen, however, they were not only without rights but were also forced to hand over part of the surplus product of their own and other people's labor to their owner.

Another class were the free foreigners, who had the right to work and live in the ancient states, but were excluded from acquiring land ownership and political rights. Freed slaves also belonged to this class. Insofar as these free non-citizens employed slaves as craftsmen and traders, they should also be counted as slave owners.

The citizens of both the territorially limited city states and the holders of Roman civil rights also formed a class. These citizens included the wealthy social upper class of large landowners, tradesmen and merchants who owed their wealth to slave labor. However, the citizens also included the demos or plebeians, the small farmers and craftsmen who were productive themselves and had only a few slaves at their disposal. Free men without property who worked for wages could also be fully entitled citizens.

The status of citizen, into which one was born like the other estates, was the aspirational goal of all lower estates. The ancient state initially granted its citizens

extensive protection from enslavement. It guaranteed property and sufficient provision, whether through productive activity, support or warlike expansions for the purpose of acquiring new land. Of course, the basis of such privileges, which also included political rights, was only possible on the basis of slave exploitation, the surplus product of which was skimmed not only from the slaves' own slaves, but also in tributary forms from the slaves of foreigners and the owners in subjugated territories.

The division into classes - citizens and free non-citizens, slaves and free people - masked the class relations between slaveholders and slaves and, within the ruling class, the different economic functions of certain groups in the production process.

The socio-economic definition of individual groupings - such as the large landowners, farmers, tradesmen, craftsmen, merchants, shopkeepers, wage laborers - in a still ongoing discussion even amounts to seeing these groupings as the various classes within the ruling stratum. [2] [14] Such an approach, however, elevates a typical characteristic of the ancient mode of production - the individual production of private owners - to a class characteristic and overlooks the fact that the transition between these individual groups was fluid. For example, there were landowners who had their estates managed by a steward and who themselves acted as merchants or traders in the urban center. On the other hand, there were urban tradesmen who owned a country estate in addition to their urban property - workshop, financial capital, houses, workforce - or who invested their assets in landed property.

Nevertheless, within the basic class of slave owners, two secondary classes can be distinguished according to their place in a "historically determined system of social production" [LW 29: 410]: Landowners were mainly engaged in an economy in kind and sold the surplus of production on the urban [428] market, through which they were linked to the commodity-money economy. The urban owners produced exclusively for sale or dealt with the distribution of the products. They were directly linked to the production of goods or to the commodity-money economy and were its main carrier.

The different position of these two secondary classes within social production also explains the change in class relations.

In the phase of the development of ancient class society, the class struggles between large and small landowners were primarily fought over land ownership (8th-6th century BCE in Greece, 5th-3rd century BCE in Rome). The middle and small peasants were the decisive driving force that forced the elimination of the dominant position of the gentil aristocracy. The class struggles were all the more successful the more urban owners were already present, whose efforts, together with those of the small landowners, were directed against the gentil aristocracy.

In a second phase (from the 6th century BCE in Greece, from the 3rd century BCE in Rome), when urban property, the commodity-money economy and slavery showed an upward trend [2] [13], the center of gravity of economic and cultural progress shifted to the urban centers, where the class of urban owners drove the historical progress.

From the 3rd century onwards, a contradiction arose in a third phase between the mass of unproductive freemen and slaves and a simultaneous shortage of labor in town and country. [12] The ruling class attempted to counter this contradiction by tying up the land and forcing the free and slaves to settle there. This dissolved the basis of the ancient classes: mobile slavery as the main production relationship and the free ownership of land and urban property.

Literature:

1 *Bockisch, G.*, in: *Beiträge zur Entstehung des Staates*. Berlin 1973, p. 123 ff.; 2. *this.* in: *EAZ* 1975 (16), p. 209 ff.; 3. *Briant, P.*, in: *JWG* 1975, T. IV, p. 115 ff.; 4. *Dieter, H.*, in: *EAZ* 1970 (11), p. 79 et seq.; 5. *Funck, B.*, in: *Klio* 1976 (58), p. 481 et seq.; 6. *Günther, R.*, in: *ZfG* 1968 (16), p. 1204 et seq.; 7.

Hahn, I., in: Klio 1976 (58), p. 459 ff.; 8. Held, W.: Die Vertiefung der allgemeinen Krise im Westen des Römischen Reiches. Berlin 1974; 9. Herrmann, J.: Die Rolle der Volksmassen in vorkapitalistischer Zeit. Berlin 1975; 10. Kreißig, H., in: Hell. Pol., vol. 2, p. 1074 ff.; 11. Seyfarth, W.: Römische Geschichte. Vol. 1-2, Berlin 1975; 12. Štaerman, E. M.: Die Krise der Sklavenhalterordnung im Westen des Römischen Reiches. Berlin 1964; 13. Dies.: Die Blütezeit der Sklavenwirtschaft in der römischen Republik. Wiesbaden 1969; 14. Ušenko, S.: Social Stratification of Ancient Society. Moscow 1973; 15. Ciceron. Moscow 1973; 16. Welskopf, E. Ch.: Die Produktionsverhältnisse im alten Orient und in der griechisch-römischen Antike. Berlin 1957; 17. this. in: Hell. Pol., vol. 4, p. 2141 ff.; 18. Actes du colloque 1971 sur l'esclavage. Paris 1973; 20. Kulturgeschichte der Antike. Vol. 1-2, Berlin 1977-1979; 21. Die Rolle der Volksmassen in der Geschichte der vorkapitalistischen Gesellschaftsformationen. Berlin 1975; 22. Die Römer an Rhein und Donau. Berlin 1975.

Gabriele Bockisch [429]

2.3.8. Colonnate

The colonate was the exploitative relationship between peasant producers that characterized the period of transition from the slavery-based social formation of antiquity to that of feudalism. Large tracts of land were parceled out and given for agricultural use to landless or land-poor peasants who were economically and non-economically dependent. The particular characteristic of the extra-economic dependency was the state-sanctioned legal ties between the producers and the land they worked. The term *colonus*, a term used in the legal language of late antiquity, was used to describe the land ties and the semi-free status of the dependent farmers. *Colonus* is derived from *colonus* (farmer, settler, tenant), a word which in turn can be traced back to *colere* (to cultivate, work). The colonate did not exist in its full form until the late Roman Empire from the 3rd-6th century, but developed over a process of several hundred years from the system of land tenancy with colons.

The first colons in Italy probably originated from clients who owned land, whose relationship of dependence was transformed into an objectified contractual relationship in the course of the struggle between the estates and as a result of the increasing exploitation of slaves. A connection between clients and colons is supported by the fact that even at the time when free tenancy was predominant, there were colons in clientlike dependence. For example, landowners such as Catilina could oblige their colons to join the army in civil war situations in the 1st century BCE.

The conditions for the spread of the colonial economy were only met after the wars of conquest in the 3rd and 2nd centuries BCE had made slavery the determining factor in production conditions in the Roman Empire. The development of villa economies based on slave labor led to the ruin of numerous small farmers and to a concentration of land ownership to sizes that only made leasing possible on a significant scale. Private tenancy in agriculture is first recorded on the slave-owning villas described by Cato in the first half of the 2nd century BCE. At the turn of the 1st century BCE, the term *colonus* in the sense of land tenant can be found in the tradition. The first certain evidence for the use of the word can be found in Cicero's speeches from 70 and 68 BCE (Cicero, In Verrem 2, 3, 55; Pro Caecina 94). The use of slaves in large quantities had already led to uprising movements soon after 200 BCE, which reached their peak in the great slave wars in Sicily 136-132 and 104-101 BCE and in the uprising of Spartacus 73-71 BCE, but still flared up sporadically in the early imperial period. The colony economy was a way out of the problems arising from the use of an ever-increasing number of slaves in agriculture. The colons guaranteed a regular surplus product without danger and it could also be assumed that they were more interested in working than slaves. [4] From the middle of the 1st century BC onwards, tenants were increasingly mentioned in the works of Roman writers, in legal provisions and, from the 1st century onwards, in inscriptions from various parts of the empire.

Until the 3rd century, the colon was a tenant of economically usable land, whose owner he dealt with as a formally equal contractual partner. He committed himself to the landlord through an individual contract (as in Italy) or the acceptance of a general lease (as in Africa and other [430] provinces) to cultivate the leased land. A certain portion of the land yield went to the owner in the form of rent. Irrespective of his economic dependence, the colonist belonged to the free population and could himself be the owner of land and also of slaves.

For a long time, a colon was understood to mean a large and a small tenant; only from the 2nd century onwards was the term reserved primarily for the latter and thus the direct producer. These were recruited from medium-sized landowners who had been expropriated, for example, when providing land for soldiers who had been discharged, from economically ruined or even just impoverished farmers, from peasants' sons who had not inherited, from urban plebeians and freedmen. Even slaves were given land as "quasi-colonies" for lease-like use. In the provinces, land confiscations, such as the formation of domains, turned peasants into colons.

The Kolone generally leased land from a private owner. The normal lease period was five years, but was often extended. The colons on state and communal land were often hereditary tenants. Legally, the colon was only the middleman for the owner. He dealt with him in a private-law exchange contract; the legal institution for this in Italy and the Romanized areas of the empire was the *locatio conductio*. Until the 3rd century, this contractual obligation was sufficient for the owner to obtain the surplus product. The money lease involved the colonists in the commodity-money relations of the urban market and thus in the distribution and circulation system of the slave society. As long as the slaves were the main producers in agriculture, the colons retained their free position, which they then forfeited to the extent that they themselves replaced the slaves.

The progressive concentration of land ownership had a lasting influence on the development of the colonate. It led to the further spread of the villa economy and the latifundium. The medium-sized estate, the *villa*, which was located on urban territory and was closely linked to the market, was particularly suitable for specialty crops such as wine and olive cultivation. Here the exploitation of slaves remained dominant for a very long time, while the colonial economy, although present, was essentially a supplement. (Columella 1, 7). The larger estates, the latifundia, were often less connected to the city and tended to develop into exempt territories, following the example of the imperial domains. There, the effective supervision of slaves was difficult and, from a certain point, impossible. Parcelling and leasing were recommended for large, contiguous estates, where grain cultivation also played a major role. [4] [7] [15] When the enslavement of prisoners of war declined during the imperial period due to the huge expansion of the Roman Empire and the slave trade in the Mediterranean region, it became more convenient and cheaper to recruit new workers by converting farmers into colons than to buy the now expensive slaves or raise them. As a result, the system of small land leases became increasingly widespread in various forms. [1] [2] [3] In the 2nd century, it was already noted when there were no colons on an estate (Digesta 20, 1, 32).

The colony economy could only survive as a form of production if it was possible to combine small-scale agricultural production with large-scale ownership in the long term. However, this was only possible if the fluctuation of the colons was restricted as much as possible. One means of achieving this was frequent indebtedness, a danger that [431] constantly hovered over the smallholder colony economy. This was because rent arrears tied the colonies to the estate and made them increasingly dependent on the landlords. When production slavery began to stagnate at the end of the 1st century and the colons already provided a significant proportion of the workforce, rent in kind also began to replace rent in money in Italy (Tacitus, Germania 25, 1; Pliny, epistula 9, 37). Tenancy in kind was a characteristic of colonies in areas where slavery had never been very important. The tenants in kind were no longer related to the landowner.

The lease was linked to the market and commodity-money relations. With the introduction of this form of tenancy, the objectified contractual relationship between landlord and tenant and the latter's individuality under private law began to disappear. In the 2nd century, the colonists on the exempt domains of North Africa, who paid rent in kind, had already been obligated to perform labor in addition to rent [6] [9] and were already in a similar state of dependence as the rural population in the formerly Hellenistic eastern provinces. The influence coming from there was clearly evident in the wide spread of the *cataphyteuse* [3] originating from Egypt to North Africa, the Iberian and Balkan peninsulas. Even more than the normal land lease, the *cataphyteuse* addressed the economic interests of the free producer, who was given the opportunity to acquire heritable property by cultivating wasteland and fallow land. The granting of property rights in the interest of production must be seen in the context of the noticeable shortage of labor and the desertification of agricultural land in the 2nd century. When Germanic prisoners of war were no longer enslaved during the Marcoman Wars (166-180), but were forcibly settled in a colony-like status and tied to the land, the institution of the colony began to emerge. The other colonies also followed this path with the increase in the indebtedness of the money tenants, the introduction of rent in kind according to the provincial model, the *de facto* land binding long before the legal one and the increase in services. [6] [15] The ruling class concentrated more and more on making classes of its own population its object of exploitation instead of the slaves.

In the crisis of the 3rd century, the aristocracy, which relied on the labor of colons and large-scale land ownership, won the economic victory over the municipal aristocracy and the urban middle classes, which were linked to slave labor and the villa economy. The cause of this crisis was slavery and the mode of production based on it. [15] It was only now that the *colonnate* replaced slavery in agriculture and became the most important form of exploitation of human labor in late Roman society. In its final form, the provincial, Hellenistic-influenced conditions of the natural economy prevailed over the colonial economy, which had developed within the ancient mode of production and was integrated into the monetary economy. The shackling of the colons to the land took place in connection with Diocletian's tax reforms at the end of the 3rd century and was legally concluded with a legal decree by Constantine in 1. 332 (Codex Theodosianus 5, 17, 1). Engels writes about the late antique colonies: "But these small plots of land were predominantly given to colonies, who paid an annual sum for them, were tied to the field and could be sold with their plot; they were not slaves, but they were not free either ... They were the forerunners of the medieval serfs." [MEW 21: 144] Although the colons of the 4th-6th century were in some respects closer to slaves, they were in part treated as equal to them in terms of criminal law, their right of ownership was generally restricted, their right of marriage was partially restricted, but unlike them they were never the property of their master, but his right to them was based solely on the ownership of the land to which the colon was considered to belong. The relationship of dependence was therefore not personal and direct, but indirect, mediated through the land. The *colonnate*, for its part, influenced the agricultural slavery that still existed.

The colons were considered free by status, but in reality they were slaves of the land (Codex Iustinianus 11, 52, 1), they were a status with hereditary ties. From the 4th century onwards, one became a colon by descent, by imprisonment, by outright condemnation or even voluntary entry into this status. Leaving this status was made very difficult, so that flight was often the only way out for the colons. [7] The *colonnate* was no longer a contractual relationship that could be terminated; the former contractual relationship between landlord and tenant had become a subject relationship between owner and dependent owner. The shackling of the land by the state was done both in the interest of the large landowners and in the interest of a regular tax revenue for the military-bureaucratic state apparatus. In socio-economic terms, the colonies belonged to the class of small-scale producers with limited economic activity from the 3rd century onwards.

The different designations such as *adscripticii* and *originarii* primarily characterized the way in which the colonate was created and regional peculiarities. For example, the legal structure was different in the western and eastern parts of the Roman Empire. [5] [1]

From the 2nd century onwards, the colons played an increasing role in the class struggle. This was evident in conflicts on the North African domains [6] [9], in the permanent flight of colons from their oppressive relationship from the 4th century onwards and in their participation in armed uprisings such as the Bagaude movement in the 3rd and 5th centuries [7].

The colonate, in which the seeds of a feudal development became visible, modified the ancient social formation and temporarily stabilized the conditions of the dominate epoch, but did not bring about any fundamental change. In Western European feudalism, peasant producers of varying degrees of dependency were still referred to as colons until the 13th century [12], but the class of servile peasants by no means developed solely from the colons of late antiquity.

Literature:

1 *Brockmeyer, N.*: Arbeitsorganisation und ökonomisches Denken in der Gutswirtschaft des römischen Reiches. Bochum 1968 (diss.); 2. *Clausing, R.*: The Roman Colonate. New York 1925 (reprint Rome 1965); 3. *Finley, M. I.*: in: Studies in Roman Property. Cambridge 1976, p. 103 ff.; 4. *Günther, R.*, in: Klio 1965 (43-45), p. 249 ff.; 5. *Ders.* in: Klio 1967 (49), p. 267 ff.; 6. *Held, W.*, in: Klio 1971 (53), p. 239 ff.; 7. *Ders.*: Die Vertiefung der allgemeinen Krise im Westen des Römischen Reiches. Berlin 1974; 8. *Johne, K.-P./Köhn, J./Weber, V.*: Die Kolonen im Römischen Reich vom 2. Jh. v. u. Z. bis zu den Severern (in prep.); 9. *Kolendo, J.*: Le colonat en Afrique sous le Haut-Empire. Paris 1976; 10. *Müller-Mertens, E.*, in: EAZ 1972 (13), p. 543 ff.; 11. *Pallasse, M.*: Orient et Occident à propos du colonat romain du Bas-Empire. Lyon 1950; 12. *Pape, I.*, in: Das Altertum 1966 (12), p. 162 ff.; 13. *Rostovtzeff, M.*: Studien zur Geschichte des römischen Kolonats. Leipzig/Berlin 1910; 14 *Seeck, O.*, in: RE, vol. 4, sp. 483 ff.; 15 *Štaerman, E. M.*: Die Krise der Sklavenhalterordnung im Westen des römischen Reiches. Berlin 1964.

Klaus-Peter Johne [433]

2.3.9. Colonization

The term "colonization", which is generally used to describe a land acquisition and settlement process, is used in two ways in relation to antiquity: in the sense of "external" colonization for the often violent appropriation of foreign territory and the simultaneous establishment of settlements there by an immigrant population, or in the sense of "internal" colonization, when it concerns settlement measures within the borders of a state.

In antiquity, colonization movements were sometimes caused by the movement of peoples, such as the colonization of the west coast of Asia Minor by the Greek tribes at the turn of the 2nd and 1st millennia BCE, but they were generally based primarily on socio-economic constraints. These could be the search for markets and sources of raw materials (metals, especially iron), i.e. trade interests, land hunger or the need to maximize the economic use of a particular territory. There were also secondary factors such as power struggles both between individual states and within one of them.

The starting point of the great Greek colonization (8th-6th century BCE), when so-called mother cities sent out groups of colonists who established apoikia (daughter cities) in various areas of the Mediterranean and in many places in the Black Sea region, was the polis, the form of classical social state organization of a socially and legally graduated community of private property owners. Inequality in the distribution of property, the increasing concentration of land in the hands of an aristocratic minority and their exploitation of the disadvantaged middle and small peasant producers, which led to debt bondage, provoked social conflicts. The number of polis citizens who were separated from the land as an object of labor grew, and who, if they were unable to engage in handicrafts and trade, could not afford to live on it.

The poleis were forced to look for a livelihood outside their home community. In addition, the poleis, with their limited agricultural territory and the level of productivity achieved at the time, were unable to provide for themselves in the long term; the import of missing foodstuffs was only possible to a modest extent. Overpopulation was bound to develop. It included pauperized peasant producers, impoverished and landless freemen, including sons without paternal inheritance, and formed an element of social and political unrest in the polis.

The efforts of the ruling social class to deport this part of the population by means of colonization, in order to relieve the pressure of class conflicts that endangered existing property relations, was typical of the entire ancient world. "In the ancient states, in Greece and Rome," Marx noted, "forced emigration, which took the form of the periodic establishment of colonies, formed a regular link in the social structure

... Lack of productive power made the citizenry dependent on a given numerical ratio that could not be touched. The only antidote was therefore forced emigration." [MEW 8: 543]

The participants in the colonization ventures came from almost all classes and strata of the polis population. The majority of emigrants were impoverished and landless polis citizens. Craftsmen and merchants, who were supporters of the urban economy, as well as people who had suffered defeats in the political struggle, also belonged to the colonist troops. Aristocrats, often from impoverished families, were often the leaders of the emigrant campaigns.

[434] The individual polis either proceeded alone to found an apoikie, or the emigrants of several communities united, of which the economically strongest took over the colonization enterprise. This probably explains the high number of colonies attributed to wealthy Miletus (Pliny, *Naturalis historia* 5, 112: more than 80, Seneca, *De consolatione ad Helviam matrem* 2, 134: 75). Such emigrations were not only based on free will, but could also take place under duress, as the popular decree of Thera shows, where it is stated that anyone who is sent to Libya as a colonist "but refuses to leave ... shall be punished with death and his property confiscated". (SEG IX, fasc. 1, no. 3, lines 37 f.)

Agricultural and commercial considerations played a decisive role in the Greek colonization ventures of the 8th-6th centuries BC. The settlements were established in order to gain arable land and use it or to create bases, transshipment points and a stable basis for the developing long-distance trade. Although a distinction could be made between new settlements with a predominantly agricultural or primarily commercial character, with a few exceptions (e.g. Poseidion in Syria, Naukratis in Egypt, Emporion in Spain) such a separation seems unjustified, as the agricultural and artisanal/commercial components usually worked together and complemented each other in the economic life of these communities.

The autonomous apoikia were politically very loosely connected to the mother city, although they generally took over the state and cultic organization from there. They had their own constitution, their own laws and their own coinage, which underlines their political and state sovereignty and economic independence. The population was divided into free citizens with full or limited rights, free non-citizens, slaves and dependent groups of people, mostly parts of the indigenous population who cultivated the polis land or worked in the urban area. Socio-political disputes - often between first settlers and colonists who came later - but also other reasons led some apoikie to establish colonies themselves.

The Greeks preferred to settle in areas where the climate was similar to that of their homeland and where olive trees, vines and other crops important to them grew and thrived. Their settlements were located on the coasts and in places from which the hinterland could be developed economically via direct or intermediate trade. They

The Thracians in the Balkans, the Scythians in the northern Black Sea region, the Siculians and Siccans in Sicily, for example, turned to areas where it seemed easy to conquer land because the local population was not very numerous and was at a lower level of social development. The conquest of land was not always peaceful. The Greeks avoided areas where powerful and influential states already existed.

Chalcis on the island of Euboea, which founded the city of Kyme on the Campanian coast in the middle of the 8th century BCE, marked the beginning of the great Greek colonization, which took place in three main directions: to the west, to the north/northeast and to the south. The colonization movement to the west concentrated on southern Italy, then known as Magna Graecia (including the founding of Sybaris by Peloponnesian settlers and Taranto by the Spartans) and Sicily (including the founding of Zankle by the Chaldeans). Zankle was founded by the Chalcidians, Syracuse by the Corinthians), reached the mouth of the Rhône (where Massalia was founded from Phocaea) and finally encountered resistance from the Carthaginians and Etruscans, who defeated the Greeks at sea at Alalia (540 BCE). From the mother country, mainly handicraft products flowed into the western [435] colonies, while grain came from there. Massalia played an important role in the tin and amber trade with northern Europe.

In a southerly direction, settlers from Thera settled in Africa on the Libyan coast around 630 BCE and founded Cyrene, which formed a confederation (Pentapolis) with its daughter cities. In addition to the important silphion plant, grain and hides were exported. Naukratis in the Nile Delta, which was founded with the consent of the pharaoh, occupied a special position. It was a mercenary center and at the same time the most important point for Mediterranean-Egyptian trade and Greek-Egyptian cultural contacts.

Around 650 BCE, Megara founded Byzantium in the north, on the Bosphorus. The Greeks of Asia Minor were particularly active, advancing into the Black Sea in the 7th century BC to establish trading factories and cities there, including Odessos, Tomis, Olbia, Phanagoria, Dioscurias and Sinope. The soon flourishing Black Sea cities engaged in lively trade with poleis in Greece and Asia Minor. Grain, leather, salted fish, honey, wax and slaves were exported. The cities themselves imported wine, olive oil, ceramics, marble, metal and luxury goods. Iron, which was so important for the further development of production instruments, came from the Black Sea region and from Thrace in particular.

The great Greek colonization began in the 6th century BC, regardless of individual later foundations. Z. came to an end. Sparta, which took the path of conquering neighboring territory (Messenia), was hardly involved. Athens' colonization began later and partly pursued other goals.

The great Greek colonization led to an upswing in crafts and trade and to the expansion of the commodity-money economy. Trade and exchange relations between the Greek world and the major oriental empires, the mother and daughter cities, the colonies and their hinterland, but also between the poleis in the Aegean region had intensified, not least due to a certain production and demand gap between the colonies, whose agriculture produced a surplus, but which needed to import high-quality handicraft products, and the mother cities, which on the one hand had developed an efficient, specialized craft industry working for the market and on the other had to import vital basic foodstuffs. The consolidation of private ownership of mobile or immobile means of production and the flourishing of crafts and trade were accompanied by the increased use of slaves in the area of material production. Slavery became a "natural phenomenon" (Aristotle, *Politika* 1254a 13 ff.; 1255a 1 f.).

The colonization movement helped to reduce social tensions in the mother cities, albeit only temporarily, as "the original inequality, which is based on the difference in wealth, immediately reappears" (Hegel). Medium and small private property had established itself socially, while the social influence of the landed aristocracy

which was either unable to form at all or only with difficulty in the colonies because the early phases of polis development were skipped there.

The geographical and spatial expansion of the polis structure gave rise to a Greek world that extended beyond the European Helms, the Aegean islands and the coastal zone of western Asia Minor to form a loose conglomerate of politically and economically largely independent state units that were interconnected in a variety of ways: the poleis, their confederations and the tribal states.

[436] The great Greek colonization was not an expansion - i.e. not the political and economic, territorial expansion of one of the mother cities sending out the colonists. The daughter cities, however, often tended to expand and made the surrounding indigenous tribes their own. The rich and powerful Sybaris is said to have ruled over four Italic peoples and 25 cities, some of which it founded itself. Athens, on the other hand, colonized and expanded at the same time by sending cleruchs, mainly citizens without land ownership, to areas outside Attica, where they received a land lot (kleros) on land that had been seized from barbarians or other Greek communities by the right of the conqueror or the politically stronger. Athenian cleruchies, some of which had already been established before the Persian Wars, were located on Salamis, Lemnos and Samos, among other places. Their foundation was promoted in the 5th century BCE in particular in order to secure Athens' sphere of influence politically, militarily and economically. In contrast to an apoikia, the cleruchies remained integrated into the Athenian state, despite being granted a certain degree of independence, especially in the 4th century BC.

The colonization activities of Hellenism, which included the founding of cities by Alexander, the Seleucids, Attalids and, to a lesser extent, the Ptolemies, but also the establishment of villages (Catoikia), may appear to be external colonization from a Greek perspective, but in fact it was a process of internal colonization aimed at intensifying the economic development and political control of the respective countries and territories. Hellenistic colonization brought with it an upswing in productive forces: new land and wastelands were reclaimed, the area of arable land increased, agricultural yields rose; trade developed in the cities, commerce flourished, local and long-distance trade relations intensified, and the monetary system became widespread in the Hellenistic Orient.

Roman colonization was based on the same socio-economic causes as Greek colonization. However, it took place under different concrete historical conditions and developed into an independent system.

Rome began to colonize as early as the royal period, initially in the immediate vicinity of the city. In the 5th and 4th centuries BCE, colonies were established in neighboring central Italy as a result of the intensifying social contradictions, the developing merchandise economy and the constant conquests. From the end of the 3rd century BCE, Rome intensified its colonization activities in the southern, such as the fertile Campania, and northern areas of the Apennine Peninsula as well as on the coasts of the Adriatic, Tyrrhenian and Ionian Seas. Rome's colonies were located on the territorium, one third of which was usually taken from the subjugated peoples and added to the Roman *ager publicus* (communal or state land).

The colonization ventures of the Romans served a threefold purpose: 1. parts of the population were supplied with land (agrarian character of colonization) and social pressure was thus diverted outwards; 2. the colonies formed military posts that monitored lines of communication and took over coastal protection (*coloniae maritimae*), which on the one hand secured the conquests made and on the other were the starting point for new ones; 3. the colonies were bases for Roman trade, especially overseas.

Rome founded its colonies alone or together with allied Latin cities. The *coloniae iuris Latini* (e.g. Brundisium, Placentia), which predominated until the Second Punic War, formed formally independent communities with Latin [437] law and were allies

Rome, which did not rule out hostilities towards it. After 202 BCE, Rome gave preference to the *coloniae civium Romanorum* (e.g. Salernum, Kroton) for security reasons, which were initially co-administered by Rome and whose inhabitants had Roman citizenship. In contrast to earlier times, the colonists, who now settled in numerically larger groups, were allocated larger plots of land, so that, for example, with the establishment of Mutina and Parma (183 BCE), 6,500 hectares of land formerly belonging to the Celtic Boii fell to Rome.

Sulla, who wanted to satisfy his war veterans by settling them on confiscated land in Italian cities (*coloniae militares*), Caesar, Augustus and the emperors continued Roman colonization activities throughout the empire, as colonies had also been founded outside Italy since Gaius Gracchus. The colonies established in the Roman provinces in accordance with military strategy and economic considerations promoted the process of Romanization and urbanization there. They contributed to the economic upswing of the provinces and to their rapprochement with the Italic heartland. Sometimes the colonies had to pay tribute to Rome. During the imperial period, they developed into a certain category of provincial towns with Roman law.

Literature:

1. *Berard, J.*: L'expansion et la colonization grecques jusqu'aux guerres Médiques. Paris 1960; 2. *Graham, A. J.*: Colony and Mother City in Ancient Greece. Manchester 1964; 3. *Hegel, G. W. F.*, in: *Sämtliche Werke*. Vol. 8.2, Leipzig 1820, p. 553; 4. *Lapin, V. V.*: Grečeskaja kolonizacija Severnogo Pričernomor'ja. Kiev 1966; 5. *Majak, I. L.*: VDI 1956, H. 1, p. 145 ff.; 6. *Mossé, C.*: La colonization dans l'antiquité. Paris 1970; 7. *Roebuck, C.*: Ionian Trade and Colonization. New York 1959; 8. *Salmon, E. T.*: Roman Colonization under the Republic. London 1969; 9. *Seibert, J.*: Metropolis und Apoikie Würzburg 1963; 10. *Tscherikower, V.*, in: *Philologus* 1927 (Supplbd. 19), H. 1.

Armin Jähne

2.3.10. War, warfare as an economic factor

In contrast to the Orient (see 2.2.8.), the ancient city-states in their heyday produced a kind of citizenship with rights and duties. The wide extension of compulsory military service and civic equality led to armies of foot soldiers with fairly uniform weaponry. However, the city-states were reluctant to give arms to the propertyless citizens. The abandonment of this principle always led to drastic changes in the constitution with all the economic and other consequences.

In Greece [5] as in Rome [1] [3: 259 ff.], the classical city-state period was preceded by the rule of the landowning nobility, which was reflected in the equestrian warfare. The warfare of this early period was merely robbery and the acquisition of sustenance. The fact that the dominance of the nobility was shaken in Greece in the 7th century BCE and that trade flourished created the social and technical conditions for the emergence of the hoplites, who formed the core of the Greek citizen armies until the 4th century BCE. The hoplites were foot fighters who fought with spear and sword [438] and wore helmets, breastplates, greaves and shields as protective armament. In many states, horsemen took a back seat. In addition to the hoplites, there was a light infantry, the peltasts. The Athenian tyrant Peisistratos (561-528 BCE) already used Thracian mercenaries as such. [2: 148] The hoplites in Athens were the members of the three upper wealth classes of citizens as well as metakeis, in Sparta the Spartiates and wealthy peraekeis. Athenian hoplites had to procure their equipment at their own expense. The Athenian land force thus consisted mainly of small property owners, for whom military service was a considerable economic burden. Compensation for service was therefore introduced in Athens even before the Peloponnesian War (431-404 BCE). Slaves were only used as warriors in the Greek armies in cases of extreme need. Perhaps they did not even make up half of the rowers in the Athenian fleet at the end of the Peloponnesian War. [12: 175 ff.] Nevertheless, the Greek armies always contained many

Slaves, because every hoplite had at least one servant at arms to carry his luggage and provide other support services.

As the fleet was of greater importance to Athens than the land forces, the Thetes, the lowest wealth class of citizens, also played a major role in Athenian warfare, as they provided the ships' crews. Their service was remunerated. "In Athens, the fleet and democracy supported each other." [4: 611] This was the situation in the "classical" 5th century BCE. War between individual states was still the norm and peace, which was always concluded for a limited period, was the exception. The economic importance of war was extremely high. It served the turnover of goods no less than trade. As the economic foundations of most poleis were poor, they tried to improve their resources through raids. The booty was an important source of income. Above all, war provided slaves. Only the brevity of the campaigns made the conditions bearable: the army began the war in the summer before the harvest (because, among other things, it was about grain), sought the decision in a single battle and could either dictate the economic and political conditions to the defeated state or had to retreat defeated itself. Sieges were rare. As a result, fortress construction and the art of siege warfare were poorly developed.

The most important war of the first half of the 5th century BCE was the struggle of the Greeks, especially the Athenians, against the Persians. By the end of the war (449/448 BCE), land trade with Asia had ceased. Instead, a maritime trading area emerged with Athens at its center. Attica was one of the Greek regions that depended on the import of food and raw materials. It is only against this background that Attic naval ventures to Cyprus, Egypt or Sicily become understandable. [10: 1912] [13: 1749] At the beginning of the Peloponnesian War, the fleet of Athens and its allies comprised several hundred ships. Their mere upkeep was a heavy burden on the state budget. [8: 1833] After the war, Syracuse and Salamis on Cyprus took the lead in shipbuilding with their four- and five-oared ships. The Athenian thetes, who were forced to work as rowers, resisted these new types because they made service more difficult. [13: 1804] Syracuse was also the source of the upswing in fortress building and siege warfare, which had Carthaginian models. Around 400 BCE, rotary guns were invented. [6: 209 ff.]

One of the most far-reaching results of the Peloponnesian War was the expansion of the mercenary system: in the 4th century BC, the proportion of citizens in the armies continued to decline. The maintenance of mercenaries developed into a major economic enterprise, and serving for pay became the most important branch of wage labor. [9] The [439] war armies were followed by hordes of merchants who immediately bought up the spoils. The majority of mercenaries served as peltasts and came from economically backward areas in and around Greece. The mercenary system thus contributed to the expansion of the monetary economy. Foreign trade was also stimulated, as the large armies had to be regularly supplied with grain, which was not available in sufficient quantities in Greece. Overall, however, the economic effects of the mercenary system were by no means favorable: The cities lived in constant fear of the rapacious soldiers. As it was mainly peasants who hired themselves out, agriculture was severely affected. The influx of money led to a rise in prices. The main way of raising money was to sell the population of a defeated city: the citizens fit for military service were slaughtered and the remaining people enslaved. Other sources of money were the aid payments from the Persian Great King and the exploitation of the mines. Eventually, the Phocians plundered the temple treasures of the Greeks' highest sanctuary at Delphi and used the loot to maintain an army. At this moment, Philip of Macedon (359-336 BCE) intervened and subjected Greece to his rule. His successes would have been unthinkable without the exploitation of the Macedonian gold mines.

The conquests of his son Alexander (336-323 BCE) had highly significant economic consequences: The Hellenistic world formed a huge transportation area with only a few currency systems. Rhodes assumed the position that Athens had once held as a trading center. Numerous people emigrated from Greece to the Diadochi states, many as

Mercenaries, because there was more to be gained in this profession than by working at home. In the Ptolemaic Empire in particular, they were kept so well that there was never any unrest in the army. When they served out, they were given a piece of land. These Greek settlers settled in the villages as the upper class. The armies of the Hellenistic states were made up of their descendants.

The extent to which the Greek society of the 4th century BCE worked for war is also shown by the fact that the war technology of antiquity reached its peak in the Diadochi Wars.

With the words that "the influence of warfare and conquest ... in Rome ... belongs essentially to the economic conditions of the community itself", Marx characterized the Roman state. [MGr 386]

Although Rome had lagged behind Greece in its economic development until the 2nd century BCE, its military system was similar to that of Greece: The army consisted largely of foot soldiers, the majority of whom were small farmers. In the early days of the Republic, the Romans had equipment similar to that of the hoplites. However, due to the limited wealth of Roman society, not all warriors were equipped with it. Armament at state expense and state production of weapons date back to fairly early times. Pay for warriors was probably introduced before 406 BCE. [6: 279] The Roman citizen was obliged to go on 16 military campaigns. Of course, all able-bodied men were never conscripted for a campaign, but rather certain age groups and the inhabitants of individual colonies. These settlements established in the conquered territory served a dual purpose: they provided the Romans with land and served to keep the allies down (as the Athenian cleruchies had once done). The allies had to participate in every war just as much as the Romans. After the conquest of Italy, the power of the Roman state was therefore very great.

[440] During the Second Punic War (218-201 BCE), the annual relief was no longer feasible, as the armies fought for several consecutive years in remote theaters of war (Spain). As a result, compulsory service was no longer calculated by campaign, but by year. This was the first step on the way to a professional army. It is only logical that we hear of Roman volunteers in the 2nd century BC. In Spain, the Romans became acquainted with the highly developed Iberian iron industry, which enabled them to produce their short sword (*gladius*). From the 2nd century onwards, the legionary was uniformly equipped by the state: he fought with a javelin (*pilum*) and a short sword and protected himself with a helmet, a breastplate and a large shield (*scutum*). The lightly armed soldiers came from the provinces or allied states. The 2nd Punic War had devastated large parts of Italy. Many farmers were no longer able to cultivate their fields and roamed the country as raiders. Their land fell into the hands of large landowners. On the other hand, the conquest of Carthage and Greece (146 BCE), the acquisition of Pergamon (133 BCE) and the complete defeat of Spain brought huge empires to Italy. After the victory over Macedonia, Roman citizens no longer had to pay taxes (168 BCE). Naturally, the wealth was distributed very unevenly. In the east and in the exploitation of the Spanish mines, Italic traders and usurers found a new field of activity. Economic aspects also came to the fore in the peace treaties: Macedonia was forbidden to use its mines and forests in 167 BCE and Delos was declared a free port, which meant that Rhodes' supremacy collapsed.

Most important was the influx of slaves into Italy, which numbered in the tens of thousands. Their import of masses enabled the large landowners to switch to the cultivation of wine and olives, which were more profitable than grain, and caused great damage to the small Roman farmers. Many lost their homes and farms and flocked to the city of Rome as dispossessed people. For those who remained, compulsory military service weighed all the more heavily and met with increasing resistance. The Roman state faced serious difficulties if it wanted to supplement its legions, as the recruitment of the dispossessed (*capite censi*) was forbidden. "They were suspect because of their great poverty", as Valerius Maximus reported (cited in [7: 1521]). The Hebrew reform of Marius led to upheavals here: When he took over the supreme command against Jugurtha in 108 BCE,

he gained his legions not through conscription, but by recruiting dispossessed volunteers. Recruitment of the dispossessed had certainly been practiced before. Marius made it the rule. On the other hand, the legal principle remained that all citizens were liable to military service. The consequence of the Marian reform was a complete change in the Roman constitution. The state now had to find the means to make the profession of a soldier attractive. Therefore, both the pay had to ensure an adequate existence and a pension had to be introduced for those who served. While the warriors of earlier times had longed for the end of the war in order to return to their fields, the mercenaries promised themselves booty and rewards from the campaigns.

The Roman mercenary system inevitably led to standing armies, as a temporary dismissal would have caused hardship for the soldiers. This increased the power of the generals, who had to keep their armies in good spirits by providing them with rich allowances. Thus Caesar almost doubled the pay at the beginning of the civil war against Pompey (49 BCE). [11: 156] Since Marius, the army numbers grew enormously until they reached the highest level of antiquity in the wars of the second triumvirate. The consequences were huge tax burdens.

[441] When the period of external and internal wars finally gave way to lasting peace (30 BCE), decades of profound economic upheaval also came to an end: the Mediterranean had become a Roman inland sea. The conquest of Egypt in particular formed the basis of imperial power, as the Caesars inherited the royal land of the Ptolemies. In addition, Egyptian grain secured the capital's politically important food supply. Italy had experienced unprecedented shifts in ownership: the victors of the civil wars had outlawed the supporters of their enemies and distributed their property to their followers. In order to provide the veterans with land, many landowners had been expropriated without any compensation. Entire regions were devastated. Augustus (27 BCE-14) restricted the number of soldiers, which led to tax cuts. The veterans no longer received land, but money. The legions were distributed unevenly across the outlying provinces. Their camps attracted traders and craftsmen, which promoted the economic development of the provinces. Many roads were also built by the legions.

Under Trajan (98-117), the Romans once again made major conquests: gold-rich Dacia as well as Mesopotamia and Armenia, which gave them control of the trade routes to India; however, Hadrian (117-138) had to give up the territories in the east again. It was under this emperor that the continuous Roman border fortifications (the *limes*) were built. The proportion of Italians in the army continued to decline. The legions developed their own economic life in their camps. The *pilum* disappeared.

The short sword was replaced by the long sword (*spatha*). The art of siege warfare gradually declined. With the exception of Marcus Aurelius (161-180), the inner areas of the empire were spared devastating wars. The devastation caused by civil wars and enemy invasions from the 3rd century onwards was all the worse. Under Aurelian (270-275), Rome was once again walled. The other cities were also fortified. The obligation to build walls, together with other benefits, destroyed the class of wealthy provincial citizens (*decuriones*). In addition to the costs caused by enemy invasions, there was the expenditure on the army, which had risen sharply since the reign of the Severi. Septimius Severus (193-211) had issued the slogan: "Enrich the soldiers!", which his successors faithfully fulfilled. From the beginning of the 3rd century, the warriors came from culturally inferior areas or were foreigners to the empire, which widened the gap between them and the producing classes. The passage of the army was now tantamount to a plague on the land. The frequent civil wars of the 3rd and 4th centuries made trade and transportation between the individual parts of the empire extremely difficult.

In the 4th century, the late antique army was fully developed. The core of the army consisted of mounted mercenaries, most of whom were barbarians. The large landowners had to provide dependents who were used for auxiliary services. The tax and coinage reforms of Emperor Diocletian (284-

305) and Constantine (306-337) were prompted not least by the needs of the army. The soldiers received not only money, but also goods in kind. Even members of the soldiery who were not warriors at all, i.e. who were not eligible for the defense of the imperial borders, were entitled to payments. The taxes for the upkeep of the mercenaries (and the bloated state administration) weighed heavily on the shamelessly squeezed rural population. As the empire's resources were insufficient to maintain a sufficiently large army, Diocletian attempted to settle warriors along the borders to support themselves as farmers. On the other hand, large landowners equipped private warriors (*buccellarii*) at their own expense. In the 5th century, Germanic tribes were given a third of the land of Roman landowners in various parts [442] of the Western Roman Empire. In return, they had to perform military service. The Eastern Roman Empire had to deal with the mercenary system until the 7th century.

Literature:

1 *Alföldi, A.*, in: *Gestalt und Geschichte*. Bern 1967, p. 13 ff.; 2. *Best, J. G. P.*: *Thracian Peltasts and their Influence on Greek Warfare*. Groningen 1969; 3. *Delbrück, H.*: *Geschichte der Kriegskunst*. T. 1 Berlin (West) 1964; 4. *Ehrenberg, V.*: *Der Staat der Griechen*. T. 1, Leipzig 1961; 5. *Greenhalgh, P. A. L.*: *Early Greek Warfare*. Cambridge 1973; 6. *Kromayer, J./Veith, G.*: *Heerwesen und Kriegführung der Griechen und Römer*, Munich 1963; 7. *Kühler, N. N.*, in: *RE*, vol. 3, p. 1521 ff.; 8. *Lammert, E./Lammert, F.*, in: *RE*, vol. 11, p. 1827 ff.; 9. *Marinovič, L. P.*: *Grečeskoe naemničestvo IV. v. do n. e. i krizis polisa*. Moscow 1975; 10. *Musiolek, P.*, in: *Hell. Pol.*, vol. 4, p. 1910 ff.; 11. *Neumann, A.*, in: *RE*, Supplbd. 10, Sp. 142 ff.; 12. *Welwei, K.-W.*: *Unfreie im antiken Kriegsdienst*. T. 1, Wiesbaden 1974; 13. *Wilsdorf, H.*, in: *Hell. Pol.*, vol. 4, p. 1727 ff.

Matthias Springer

2.3.11. Agriculture

The reason why we have no actual depictions of agriculture from the first centuries of Greek history is not to be found in an incomplete tradition, but in the particular interests and formal aspirations of the early Greek poets and thinkers. The Homeric epics from the 9th and 8th centuries BCE depict the struggles and adventures of noble heroes, and the subject of rural work is only touched upon in brief parables and a few longer passages. (Most important passages: the so-called shield description in the 18th book of the "Iliad", especially verses 541 ff., and the 14th book of the "Odyssey").

The "Erga" (works) of Hesiod, the only peasant poet of the ancient Greeks, provide a deeper insight. He lived in Boeotia towards the end of the 8th century BCE and urges his fellow farmers to acquire honest prosperity through hard work. This appeal is followed by instructions on how to run a farm, which, however, do not primarily arise from a special economic interest, but are always subordinate to the educational concern of the work.

The archaeological findings on the history of agriculture have so far been quite modest. This is mainly due to the traditional focus of classical archaeology on the main works of ancient art and architecture. The inscriptions offer little information on contemporary agriculture, in keeping with their predominantly monumental purpose. Relatively informative are only inscriptions that report on the sale of confiscated land and the inventory on it, including the slaves, and the Attic leasehold inscriptions of the 4th century BCE also allow some insight into internal farm conditions. We are therefore mainly dependent on literary sources. The comic poets (Aristophanes), the Attic orators (especially Lysias, Isaios and Demosthenes) and the historians and philosophers (Thucydides, Xenophon, Plato, Aristotle and Plutarch) provide valuable information on land ownership and individual features of economic management. Xenophon's "Oikonomikos" occupies a special place as an important source [443] for problems of farm management on a large estate working with slaves. The specialized agricultural literature that emerged towards the end of the 5th century BCE has been lost. The works of the Hellenistic agricultural writers

have not survived, but two highly important botanical works by Theophrastus, the "History of Plants" and "Plant Physiology".

Towards the end of the 2nd millennium BCE, the so-called Dorian migration sealed the demise of a social order in Greece whose socio-economic type (ancient oriental mode of production?) is discussed by Marxist research. The immigrating tribes occupied large parts of the Greek fertile land. Their tribal leaders and the deities had their own pieces of land "carved out" of the communally occupied territory - after this process (Greek *temnein*) such a portion of land is called *temenos*. The remaining land was divided into lots of equal value (*kleros*) and - as the name suggests - was originally raffled off to the members of the tribe. Private ownership of these pieces of land must have emerged a little later, as the Homeric epic [Homer, *Odyssey* 11, 490; 14, 211] already mentions

"Men without landless" (*akleroi andres*) and "men with many landless" (*polykleroi*) are mentioned. There was therefore already a certain degree of dispossession and appropriation. The new order, the ancient mode of production, was based on agriculture throughout, even if the high points of its development were primarily associated with the rise of slavery, commodity production and cities.

Society in the 9th/8th century BCE was dominated by the nobility. Its economic basis consisted of land ownership, the possession of herds of cattle and the use of dependent labor and slaves. Even though the Homeric epics elevate their noble heroes to the status of heroes, the parables and the values and interests of the main protagonists reveal that the nobility of this time had strong peasant characteristics. They are involved in working the land and caring for the animals. Only on larger estates, and here above all with the concentrated use of numerous workers, such as during grain mowing, did the nobleman devote himself entirely to management and supervision.

The free peasantry hardly appears in the Homeric epic. Homer and Hesiod still lack the term *georgos*, which in later centuries predominantly refers to the peasantry. The peasants are absorbed into the mass of the *laoi*: the warriors of Troy, the subjects of the "kings". They were dependent on the benevolence of the lords, as the nobility had jurisdiction and only they could protect the peasants from cattle theft and other attacks by neighboring nobles. In return, the peasants had to follow the army, which could lead to economic losses and subsequent growing dependence on the noble lord.

Homeric poetry gives the following broad outline of agriculture at this time [13]: livestock farming probably had a certain preponderance compared to agriculture. Cattle, goats, sheep and pigs formed the main wealth of the nobility and the coveted prey of their raids. Donkeys, mules and horses are also mentioned. The latter - although of little economic importance - have been a status attribute of the Greek nobility for centuries. Domestic fowl (chickens and ducks) are not mentioned in the Homeric epics; it is disputed whether the goose had more than just cultic significance.

In addition to livestock farming, grain farming provided the basis for food. The main crops were wheat, emmer and barley. The soil was loosened several times with the cattle-drawn plow and [444] the hoe, but not turned in one go. Whether iron ploughshares already existed in Homer's or Hesiod's time cannot be determined with certainty due to a lack of finds. The soil was fertilized with animal dung. Green manuring by plowing under weeds or young seeds is not documented until the 4th century BCE by Xenophon and Theophrastus. In order to take advantage of the winter rains, the last furrow was followed by sowing in the fall. The seed was covered with a hoe - the harrow was unknown to the Greeks. In June of the following year, the ripe grain was cut with sickles, swathed and finally tied into sheaves, which were put up and later taken to the threshing floor. The threshing areas were often located in the immediate vicinity of the fields. The grain was trodden out by animals in a circle, then winnowed and finally taken to storage rooms.

Horticulture provided a valuable addition to the diet. It mainly produced onions, leeks, cucumbers, peas, beans and garlic, as well as spice plants such as caraway, fennel and coriander.

Wine was - not only in Homeric times - the most important drink of the Greeks, and the care of the vineyards took up a significant amount of time and energy. The main work consisted of pruning the vines - carried out towards the end of winter, using curved knives - and repeated weeding and loosening of the soil. In addition, the supporting timbers were maintained and the vines were enclosed by hedges or ramparts made of field stones to prevent damage caused by people, animals or water. During the grape harvest in September, the grapes were picked and taken to the drying areas in baskets to ripen for a few days. The juice was then pressed from the grapes, left to ferment and finally poured into jugs, which were sealed. Judging by the decorative epithets in the epics, the Greeks of Homeric times only made red wine. Individual winegrowers endeavored to cultivate special varieties, but it is impossible to say to what extent their results influenced the general level of viticulture.

The olive and the oil pressed from it have been other main products of Greek agriculture since ancient times. The fruit of the olive tree was eaten in various ways, while the oil was used in food preparation, personal hygiene and as fuel for clay lamps. Since the olive tree is only mentioned sporadically in the Homeric poems - in contrast to later art and literature - it must be assumed for the early period that it was initially only widespread in some areas of Greece (around Miletus, on the Greek islands, in Attica).

In the first centuries of Greek history, the nature and scope of the above-mentioned activities hardly gave rise to the development of specialized agricultural professions. Only the apparently considerable livestock on some aristocratic estates required workers who looked after the animals exclusively. As this was not seasonal work, which was usually assigned to day laborers, slaves were used. They stayed with the herds at all times.

According to Hesiod, farmers also owned slaves, albeit in small numbers. In order to secure the existence of their own farm and to counter the pressure of the "gift-eating" nobles, the poet advises extreme thrift and the greatest diligence. A maid should only be taken into the household if she is not burdened by a small child. The farmer himself could maintain his property undiminished if he had only one son. In order not to be idle during the period of low employment, Hesiod took part in the dangerous coastal shipping trade and sold surplus agricultural produce at neighboring markets. Small-scale maritime trade and fishing always supplemented the income from agricultural work for many farmers in the Greek coastal regions.

In the 7th century BCE, relative overpopulation, the continual division of land and the creation of land - typical features of the parcel economy - combined with the practices of large landowners to put large sections of the Greek peasantry in a difficult situation. Some important city-states (Miletus, Corinth, Chalcis) averted the threat of further conflict by colonizing landless citizens in Lower Italy, Sicily and the coasts of the Black Sea.

In Athens, a different path was taken. Numerous farmers here had fallen into the status of *hektemoros* [11], a man in debt who was only allowed to remain in the polis in exchange for one-sixth of the income from his land. Further indebtedness resulted in the sale of family members, including the farmer himself, into slavery, as the land presumably had to remain in the possession of the family and was merely borrowed on the debtor's body. The peasants resisted this development, and since the decimation of the peasant class posed serious dangers to the preservation of the ancient civil community, the first important advances in trade and commerce paved the way for the import and use of foreign slaves.

In 594 BCE, a compromise was reached in Athens under the leadership of Solon: farmers' debts were canceled, borrowing on the body was prohibited and many Athenians who had been sold abroad were brought back. Solon also imposed an export ban on agricultural products in order to counter the growing food shortage, which has been a chronic affliction of all major Greek cities ever since. Only Attic olive oil, which was apparently already being produced in significant quantities, was not subject to the export ban. An important demand of the peasants, the redistribution of the land, was not fulfilled, but the Solonian reforms created the conditions to essentially secure the existence of the Attic peasantry in the future.

In the 7th and 6th centuries BCE, the tyrannical form of government prevailed in many Greek states. It supported the peasants against the nobility by promoting the expansion of the land.

The Attic sources provide the best information on agricultural conditions in the classical period (5th/4th century BCE); they will therefore be followed here. Even if other Greek states, especially Sparta, originally developed their own social structures, there were significant similarities in the main issues of social and technical development in the agricultural sector. This applies to all advanced Greek states. In addition, extensive areas (e.g. Thessaly) remained at the level of the early period; their peasant populations were unable to free themselves from their dependent position for centuries.

From the 5th century BCE until the Hellenistic period, Attic agriculture [2] was predominantly characterized by free small and medium-sized farms, even if large-scale land ownership gained in importance from the 3rd century BCE onwards.

The farmers mostly lived in villages or small country towns, but there are also traces of individual farm settlements in various areas of Greece. [12] Farms often had only 2-5 ha of land; anyone who owned more than 10 ha was considered a large landowner. Farming was mainly oriented towards [446] self-sufficiency - this also applied to footwear, clothing and simple tools - and produced cereals (barley, wheat), wine, olives and oil in the traditional way, as well as vegetables and fruit, especially figs. Surpluses were sold. According to the two-field farming method, one part of the cultivated area was cultivated while the other remained dormant. From an Attic inscription (IG II/III² 2493), attempts have been made to prove the transition to three-field farming [7: 386], but closer examination has shown that this is only an improved form of two-field farming, in which part of the fallow land was cultivated with legumes in order to add nitrogen to the soil.

Wheat yields were normally around 7.5-9 dt/h, on very good soils they could be up to 12 dt. [8: 31 ff., 60] The Greeks did not undertake methodical efforts to improve the seed through selection, crossing and acclimatization, but there was empirical progress. [8: 18]

The predominantly mountainous terrain demanded great efforts from the farmers. On the Greek islands and on the mainland, aerial photography has revealed entire systems of terraced fields that led up the mountain slopes and served to retain the topsoil. Due to the lack of water in many areas, wells had to be dug and cisterns constructed.

All uncultivated areas, especially the mountain slopes and the forest, were used for grazing sheep, goats and pigs. There is no evidence of any special care of the grassland. Cows were only kept in small numbers, as the Greeks preferred sheep's and goat's milk. The most important draught animals were oxen and mules. Beekeeping played an important role, as in ancient times food was sweetened with honey and the wax had many uses.

The Persians brought something new with them on their Greek expeditions at the beginning of the 5th century BCE: alfalfa - important for green manure and as fodder - and the chicken. [6: 326, 413 f.]

Significant technical improvements to agricultural implements were not made in the 5th and 4th centuries BCE, after the single plowshare had become established, so that the agricultural operations described above essentially remained the same in ancient times.

However, with the upswing in crafts, trade and urban development from the middle of the 5th century BCE, there were tendencies towards a differentiation of the peasantry: a belt of small farms grew up around the cities, producing vegetables, wine, oil and fruit for sale to the urban population. There was a growing interest in rational farm management and the price of land near the city rose. Unfortunately, only two Attic prices for land have survived. They are 85 and 150 drachmas per *plethron* (0.095 ha) respectively, but there is no indication of the quality of the land. In addition to this, the land lease became important; it also gave non-citizens access to land. The new trends did not include remote villages.

In contrast to large estates, the use of slaves was not a factor determining the development of peasant farms [5: 148], because the small landholdings offered too little scope for the division of labour, specialization and cooperation. The farmer was essentially dependent on his own labor and that of his family, plus one or two slaves. During the season, day laborers were employed if necessary.

The new developments mentioned above did not bypass the large landowners. However, they manifested themselves less in an increased orientation towards the market, [447] because the large farms always tried to sell some of their products, as their own consumption was usually lower than their output. What is new is rather in the management of the business. As social life became richer and more complicated, the large landowners, who often belonged to the old nobility and held important political functions, had to stay in the city. They now entrusted the management of their estates to administrators, usually slaves, whom they could trust. The development of this separate management function can also be explained by the fact that large estates in Greece often consisted of scattered pieces of land that were difficult to manage. At the same time, it took place in an effort to successfully use slaves on large estates. Xenophon's writing "Oikonomikos" makes clear the extent of the experience of rule gained in this way. Judging by the little that is known about the economic management of large Greek estates, progress was achieved primarily through the concentrated use of groups of slaves, who were able to plough and hoe several times a year at times that were favorable from an agricultural point of view, regularly tended the vineyards and oil plantations, but also looked after a livestock that provided sufficient quantities of manure to maintain soil fertility.

However, the significant difficulties associated with the use of unfree laborers with little interest in their work should not be overlooked. Overall, the economic results achieved by large farms in the 5th and 4th centuries BCE did not give rise to effective efforts to concentrate land in a few hands.

[1] In order to minimize their risk, the large Attic landowners often invested part of their funds in tenements, workshops, tenant slaves, city properties and in the lending business.

The agricultural conditions of the Hellenistic period (end of the 4th-1st century BCE) only show remarkable changes in some aspects compared to those of the so-called classical centuries. [14: 584 ff., 927 ff., 945 ff.] In the numerous wars of the Hellenistic rulers and in the conquest campaigns of the Romans, Greece suffered significant population losses and the desertification of agricultural cultures. The process of concentration of land ownership, which had probably begun towards the end of the 4th century BCE, intensified and in some areas led to the impoverishment of farmers and the creation of large estates despite the fierce resistance of broad masses (in Sparta: reform attempts by Agis and Kleomenes). The financially strong Roman conquerors later took an interest in this development, using their administrative offices. T. Pomponius Atticus, a friend of Cicero, is said to have owned land on the Epirotic coast, Corcyra and the Sybota Islands as well as estates in Italy. [4] However, Hellas never became a land of latifundia. Small and medium-sized landholdings in the hands of civic associations, temples and wealthy individuals always had a certain importance. Whether the peasantry actually declined as much as assumed remains to be seen.

further investigation. In contrast to the remarkable findings and experiments in other areas, the Hellenist period did not achieve any significant progress in the development of agricultural productivity. It remained with the traditional two-field agriculture, the previously used equipment and the above-mentioned products of Greek agriculture. The duck became the new domestic animal.

With the increasing importance of medium-sized and large farms, their orientation towards the market and rational production of good quality must have increased [448]. A lively, unfortunately completely lost agricultural literature - compare the long list of authors in Varro (*De re rustica* 1, 1.7 ff.) - provided ideas and knowledge that were soon adopted by the Romans.

The large Greek cities were still unable to solve the chronic problem of grain supply and were forced to import expensive goods. Olive oil and wine yielded little profit under the pressure of competition from the Hellenistic countries of the East.

Our knowledge of both Roman and Greek agriculture is based mainly on literary sources, whereby the Roman tradition is not only much richer than the Greek, but also has the advantage that it provides information about an important type of farm in three main works written in three successive centuries. This makes it possible to follow the development of this type. Cato's work on agriculture (before the middle of the 2nd century BCE) is at the beginning of the series; it is followed by Varro's *"Res rusticae"* (middle of the 1st century BCE) and Columella's great work on agriculture and horticulture (after the middle of the 1st century). Virgil (1st century BCE) glorified rural life in poetic form in the *"Georgica"*. We owe a number of important details to Pliny's *"Natural History"* (1st century). Finally, we should mention Palladius (4th century), who concisely summarizes the knowledge of his predecessors. A large number of archaeological finds supplement the information provided by the agricultural writers. Important information about social conditions is provided by historians (Livy, Tacitus, Diodorus etc.), orators (Cicero), the great legal works of the Romans and inscriptions.

Roman, or rather Italic, agriculture, to which this article is limited, essentially bears the same characteristics as Greek agriculture, because like the latter - with the exception of the Po Valley - it is bound to the geographical and climatic conditions of the northern Mediterranean coast. Moreover, Roman and Greek society show numerous similarities in fundamental questions of their development, so that the similarities are not only based on individual milieu factors, but result from the embedding of Greek and Roman agrarian relations in the entire complex of the ancient mode of production. Thus, the social changes and technical innovations in the Italic agricultural sector are not achievements of the Romans in the narrow sense, but the results and consequences of a development process that the entire ancient formation underwent.

Little is known about agriculture in the first centuries of Roman history. However, it is clear from the text of the Laws of the Twelve Tables (5th century BCE) that early Roman society was characterized by farming throughout. In contrast to the fertile arable regions of Etruria and Campania, the Roman heartland (*latium*) was not very productive; pastoral farming dominated. The scarcity of fertile land, over which the patricians and plebeians fought a bitter battle, prompted the Romans to conquer foreign territories at an early stage. After 200 years of expansionist warfare, Italy was in Roman hands by the middle of the 3rd century BC. Considerable parts of the conquered territory were given to the Roman peasant soldiers or were open to all citizens as *ager publicus* (state land), but in fact mainly to the nobility. The resistance of the masses led to the enactment of the licinian-sextian laws in 367/366 BCE, according to which, among other things, a citizen was not allowed to occupy more than 500 iugera (approx. 125 ha) of the *ager publicus*. With the economic upswing of the 3rd century BCE, which was reflected in the expansion of the monetary economy, increasing numbers of slaves and growing trade and commerce, the nobility faced further opposition from the knights. The lex Claudia of the year 220 [449] BCE

restricted maritime trade and leaseholds of the senatorial families in favor of the knights and relegated the nobility to the acquisition of large estates in keeping with their status.

In Rome's numerous foreign wars, the Italic peasantry was brought to the brink of ruin, as it made up the bulk of the Roman army and was deprived of the management of its economy for years, while the nobility successfully accumulated landed property. In 133/132 and 123/122 BCE, the Gracchi took action against this development, which endangered the existence of Roman society. By law, they restricted a family's ownership of state land to 250 hectares; what lay beyond this limit was to be divided into plots of 7-8 hectares and given to impoverished farmers. The founding of colonies was also intended to help farmers obtain land. In the 2nd century BC

Thus, three main types of Italic land ownership prevailed: the small farms, the medium-sized farms of the *villa rustica* type and the latifundia.

Judging by the few sources, the Italic peasants [16: 335 ff., 387] lived under similarly difficult conditions as their Greek counterparts. They settled in villages or small towns and went out to their fields in the morning, which were sometimes very far away from their homes. They owned only a few *iugera* of arable land. The land was worked by the farmer and his family. The hoe often replaced the plough, as there was not always enough work and fodder for draught cattle due to the small size of the land. As the small farms were mainly self-sufficient, the cultivation of cereals (barley, spelt, wheat, millet) played a major role alongside the cultivation of wine and olives and the production of oil. The farmers probably tried to improve their income by hiring themselves out as day laborers on larger farms for a certain part of the year. In the period of the late Republic, however, free wage labor probably became less important due to the use of groups of hired slaves and tenants who were contractually obliged to perform work. [16: 349]

The farmers' livestock was limited to a few pigs, sheep and goats, which had to forage on the commune's pastureland. The donkey was an indispensable means of transportation.

Small farms existed until late antiquity. They existed independently or - within the association of large estates - as tenant farms. The latter provided the starting point for the introduction of the colonate.

The medium-sized estates of the *villa rustica* [9: 53 ff.], well known from the writings of Cato, Varro and Columella, embodied the most highly developed form of Italic agriculture. They comprised several hundred iugera of land, which were worked by slaves under the tight control of the lord of the manor and his stewards. The farm specialized to a certain extent in the production of wine, olives and oil. Cereals (wheat), figs, vegetables, wool, cheese and honey played a lesser role. These products were intended for sale on the market, which was formed by urban centers and transport hubs. In order to maximize profits, the agricultural knowledge of the time was used and the soil, crops and livestock were cared for as carefully as possible.

The greatest attention is paid to the vineyards. They are tended by slaves who work with particular care. All the work on the vineyards was carried out in the same way as the Greeks, but the desire for maximum profitability and maximum utilization of slave labour and all other investments lent the picture new characteristics.

[450] The olive trees require little care; everything here depends on careful handling of the fruit when harvesting and pressing the oil. As the trees are planted at wide intervals due to their size, the spaces between them are used for sowing wheat if the soil is good. Occasionally, wine and grain are also combined. For the cultivation of cereals, the Romans developed the fallow system in a remarkable way, incorporating legumes to a greater extent than the Greeks and achieving higher yields through the cycle of fallow, winter cereals, legumes and summer cereals. [16: 113, 122 ff.] The technical equipment was essentially limited to hoe, plow, harrow, sickle and threshing sledge. The villa owners derived significant income from livestock farming, which was combined with grain and fodder cultivation.

This is because home-grown fodder is cheaper than bought fodder, says Varro, and the fields benefit from the animal manure. The number of draught oxen for the plow and donkeys depends on the size of the estate. Sheep are kept in significant numbers - in keeping with Italy's climate and vegetation - not only for their wool, but also for the milk, which is drunk or made into cheese. Goats play a similarly important role. The largest source of meat was the pig; however, in ancient times, meat food took a noticeable back seat to cereals. The animals were usually kept in herds on forest pastures. The growing sophistication of Roman cooks made suckling pigs in particular a sought-after delicacy. Horses and mules are bred for military service as pack animals; they are less important for farm work. There is no shortage of poultry on any estate: geese, ducks and chickens, as well as peacocks and other rare birds for spoiled palates. Poultry droppings are considered the most valuable fertilizer. Finally, ponds were also created for the breeding of high-quality fish, which fetched remarkable prices.

The manors of the *villa type* form independent units and are usually conveniently located, but at some distance from roads or larger settlements. The manor house, stables with rooms for slaves, barns and other farm buildings are enclosed by the walls of the estate.

The third type of farm was the *latifundia*. They dominated huge areas, particularly in lower Italy and Sicily, but without completely eliminating small-scale farming. In southern Italy, extensive pasture farming with relatively few slaves dominated. A different type of *latifundia* is characteristic of Sicily. It produced significant quantities of grain to supply Rome. In the phase of the development of *latifundia* in Sicily, the representation of small farmers combined with the heavy use of slaves for grain cultivation triggered significant uprisings by the oppressed (138-132/104-101 BCE).

New research shows [91] that it is not the *latifundium* but the *villa* that is the typical farm producing with slaves, which fully expresses the contradictions of this mode of production. Similarly, the *latifundium* is probably not the characteristic form of Italic large-scale property ownership, but rather the grouping of several scattered villas in one hand. [10] Towards the end of the 1st century, the medium-sized, market-oriented villa farms receded into the background as the number of productively active slaves generally declined, and the large estates of the emperors and the upper classes - in later centuries also the church - increasingly characterized the image of Italic agriculture.

The landlords gave out their land directly or via large tenants to colons [3] [15]. These were initially mostly free farmers, later also slaves or settled barbarians, who usually leased plots of land for five years and paid a certain sum of money [451] in return. In the 2nd century, payment in kind was added because the production of goods was declining and cash was difficult to obtain. The new situation is also reflected in the strong upswing in grain cultivation.

In order to stabilize the declining Roman state, Diocletian (around 300) imposed a tax in kind on all rural property. If colonies tried to evade payment by fleeing, the tax was levied on the abandoned land. This explains the interest of the large owners in tying the colons to the land. Constantine enacted a law to this effect in 332. When it was introduced, even the free peasants were entered in the tax lists as appurtenances of their own land and thus bound to the land like the colonies. The latter were not directly bound to the landlord, but only by means of their plots. As the independence and authority of the large landowners grew in the following centuries, the colons sought to escape the strong tax pressure of the state by placing themselves under the protection of powerful landlords. In this way, dependency relationships emerged via the colonate, indicating the emerging feudal order.

Literature:

1 Audring, G., in: Klio 1974 (56), p. 445 ff.; 2 Ders. in: Studien zur athenischen Sozialstruktur und römischen Wirtschaftspolitik in Kleinasien. Berlin 1977, p. 9 ff.; 3 Clausing, R.: The Roman Colonate.

New York 1925 (reprint Rome 1965); 4. *Feger, R.*, in: RE, Supplbd. 8, Sp. 516; 5. *Finley, M. I.*, in: *Historia* 1959 (8), p. 145 ff.; 6. *Hehn, V.*: *Kulturpflanzen und Haustiere in ihrem Übergang aus Asien nach Griechenland und Italien sowie in das übrige Europa*. Berlin 1911; 7. *Heichelheim, F.*: *Wirtschaftsgeschichte des Altertums*. Vol. 1, Leiden 1938; 8. *Jardé, A.*: *Les céréales dans l'antiquité grec-que*. Paris 1925; 9. *Kusiščin, V. I.*: *Rimskoe rabovladel'českoe pomest'e II v.don.è - I v.n.è* Moscow 1973; 10. *Ders.* in: VDI 1975, H. 4, p. 41 ff.; 11. *Lotze, D.*, in: *Philologus* 1958 (102), p. 1 ff.; 12.

Pečirka, J., in: *Problèmes de la terre en Grèce ancienne*. Paris/Den Haag 1973, p. 113 ff.; 13. *Richter, W.*: *Die Landwirtschaft im homerischen Zeitalter*. Göttingen 1968; 14. *Rostovtzeff, M.*: *Gesellschafts- und Wirtschaftsgeschichte der hellenistischen Welt*. vol. 2, Darmstadt 1955; 15. *Seeck, O.*, in: RE, vol. 4, sp. 483 ff.; 16. *White, K. D.*: *Roman Farming*. Ithaca, N. Y. 1970

Gert Audring

2.3.12. State as an economic factor

The connection between state and economy arises from the fact that the state, in class societies the organ of power of the ruling class, arose "from the need to keep class antagonisms in check, but since it arose at the same time, in the midst of the conflict between these classes, it is as a rule the state of the most powerful economically ruling class, which by means of it also becomes the politically ruling class and thus acquires new means to suppress and exploit the oppressed class". [MEW 21: 166 f.] The ancient states, since people had to devote a far greater part of their total working time to satisfying their material needs, were to a far greater extent "on the whole and on a large scale only the reflex, in summarizing form, of the economic needs of the class dominating production". [MEW 21: 301] In bourgeois scholarship the view was long held that ancient development had been dominated and determined by politics. Marx had already expressed the view that the people of antiquity themselves understood their lives as essentially determined by politics, but that it was necessary to investigate what lay behind the conscious motives of active people, "the way in which they gained their lives", and he emphasized that the ultimately determining moment was to be sought in the production and reproduction of real life (see [MEW 23: 96] [11: 29 ff.; 352 ff.]).

In antiquity, production aimed directly at use value was the dominant form; therefore, economic interests, of which the state is a reflex, were of a direct nature. Private landowners existed only through the community of citizens, the state [MGr 378 f.]; only those who were also members of the community could be owners of land. This applied to both the Greek polis and the Roman *res publica*. At the same time, the ancient state formed the necessary community of interests for the acquisition of further land, which could be state property, such as the *ager publicus* in Rome, or private property. Robbery and war emerged as a common task in the extended reproduction and acquisition of slaves, both of which were directly economic processes that remained indispensable in the production process, "both for the maintenance of property and for the acquisition of new property" [MGr 391]. In its special form of state power, violence constituted a factor that had a direct effect on production and reproduction, an economic potency.

The role of the ancient states as an economic factor can be traced in a wide variety of areas. Both the Greek polis and the Roman *res publica* owned land; the mines were state property. The states minted coins and intervened in trade through export bans, e.g. in Athens on grain and other agricultural products apart from oil, as well as through trade agreements in which necessary imports of raw materials were secured. [5]

The role of the state as an economic factor depended on its structure. Just as the ancient mode of production developed, reached its peak and its limits, then went into decline, the polis, the *res publica*, the political, social and economic organization also changed. [13: 275 ff.] In Greece, the characteristic, structurally defining Greek form of government, the polis, emerged from the 9th century BCE. [3: 32 ff.] The basic economic unit

was the self-sufficient farm (*oikos*). The basis of the *oikos* was the allotted share of land (*kleros*) and rights to graze livestock and cut wood. Marx emphasized that "the form of free ownership of parcels of land by self-sufficient farmers as the prevailing normal form" formed "the economic basis of society in the best times of classical antiquity". [MEW 25: 815] The shares of land were economically unequal [9: 9]; differentiation increased the differences; the aristocracy formed the ruling class.

In addition to the poleis, tribal states (*ethne*) had also emerged from the 9th century BCE [3: 28 f.]; these continued to exist for a long time in some areas of Greece, e.g. in the northwest. Here, too, the economic unit was the *oikos*, but development was much slower than in the poleis. In the poleis, the ruling class, the larger landowners, tried to use their economic superiority to make the other smaller landowners dependent on them and restrict their rights. The indebtedness, debt bondage and debt slavery of the small landowners increased, resistance grew and uprisings threatened. This situation led to the Solonian reforms in Athens, which Engels placed in "the series of so-called political re[453]volutions", "with an intervention in property". [MEW21: 112 f.] [11: 378 f.] Solon's reforms changed Athens enormously. From now on, the aristocracy no longer ruled alone. Citizens had access to offices in proportion to their income. Debts were abolished, debt bondage and debt slavery were banned. Trade and crafts were promoted, and the creation of a uniform system of weights and measures was a good prerequisite for trade, including the minting of coins. This completed the first phase of the development of the ancient mode of production and the polis. In the city, which emerged as the center of the landowners' residences, specialization, division of labour and exchange relations, trade and crafts developed more rapidly. [6: 382] [9: 24] As a result of these conditions, slavery became the basis of production. The fully developed ancient mode of production developed in the poleis with an urban center.

The Spartans (see [8]) retained the military camp as a settlement. The land remained state property, the subjugated inhabitants became helots who had to feed the Spartans. In addition, the Periöks lived in their own poleis, which were personally free but without rights in the Spartan state. The economic basis of Sparta was agriculture, which was practiced by the Helots. A small number of crafts in the Periökian cities served the military needs of the Spartans. The Spartans were not allowed to engage in economic activity. The ruling class tried to keep the tendencies of commodity production, of commodity-money relations, at bay. But the conscious regulation of property relations and the entire way of life could not stop the differentiation of property and ultimately the decline. In the 5th century BCE, development in the poleis reached its peak. An important factor was the state budget. [3: 101] [9: 30 ff.] First of all, it should be noted that a balanced budget was probably aimed for, but certainly not achieved [4: 144], because neither the income nor the expenditure could be calculated with any degree of accuracy. Expenditures included the construction and maintenance of public buildings, the organization of festivals and sacrifices, and honorary gifts. These expenses had a positive influence on production. The daily allowances for jurors and councillors, but also for participants in theatrical performances and popular assemblies, were diets whose necessity was convincing in the polis, but were a burden on the state. The state benefits to secure the supply of grain, which occurred several times, were subsidies that kept prices stable. Public finances were heavily burdened by shipbuilding and warfare, even though the citizen army equipped itself. [3: 98] The administration, on the other hand, was cheap, as the officials received no salary and the lower administrative work was often carried out by slaves. The revenue to cover all state expenditure had to be raised in various ways. There was possibly a permanent direct taxation of the citizens ([10: 19] contrary to other doctrines). How it was assessed has not yet been determined. It is clear, however, that this revenue was not sufficient. Therefore, the wealthy were obliged to make certain honorary contributions to the state from their wealth, i.e. to pay a so-called *leiturgia* for one year. [4: 150 ff.] [6: 406] The *leiturgia* varied greatly. Thus the

Hippotrophy, maintaining a war horse, choregy, providing a chorus for a dramatic performance and having it dressed and rehearsed. The most expensive was probably the trierarchy: it included the equipment, manning and catering of a warship and originally also the command of a warship. [3: 102] Further income flowed to the state through the enclosures. They included various things such as fees for the use of the communal pasture, the roads, the port, for [454] licenses and the court. Free non-citizens (metoks) had to pay a residence fee in Athens. The customs duties [6: 405] were high, usually an import and export duty of 2% [3: 106]. All revenues were only sufficient to cover the budget in peacetime; in wartime the property tax (*eisphora*) was imposed almost regularly [6: 408], especially in the 4th century BCE.

Z. A special form of this was the *proeisphora*: here the 300 richest citizens had to pay the tax in advance and had to collect it themselves.

In the 5th century BCE, Athens attempted to extend its rule (*arche*) over other poleis [3: 142 f.], the allies became increasingly dependent on the suburb, which was not without advantages for Athens' economic and financial power. These consisted of a large sales market and the establishment of cleruchies, i.e. military bases on the territory of the Grisons, which served to secure Athenian rule. The cleruchs were landless Athenian citizens who had to be given land in the colony. This de facto expanded Athens' arable land, as the cleruchs retained their Athenian citizenship. The polisarchy thus became an attempt to expand the polis into a territorial state. For around half a century, the people of Graubünden paid 460 talents a year to Athens and, after 425 BCE, even 1,460. But the Athenians had to spend this money mainly on maintaining their fleet of 300 triremes and on a whole range of military ventures. Only occasionally did they manage to generate a surplus, which was invested in large buildings. The Athenian *arche* collapsed with the defeat in the Peloponnesian War.

From the end of the 5th century BCE, the polis experienced a political decline, while a certain economic prosperity remained (different [9: 37 ff.]). This also resulted in changes to the state budget. Among the revenues, the *Leiturgia* disappeared. Taxes, customs duties and fees remained without being able to cover the financial needs. For this reason, the *epidosis* was often used, a levy on citizens according to the size of their assets for special expenses; in terms of its frequency, it resembled a tax. In addition, state property was leased out. These were lands owned by the state or its subdivisions as well as the temples. A relatively good source of income were the mines, especially the silver mines, which were leased to private entrepreneurs. The state budget was also organized more clearly. Instead of the many coffers in Athens, there were now only two, one for war and one for the theater, the latter being the more important for a long time because it was used not only to pay for theater attendance but also for the upkeep of the propertyless citizens. This system functioned in Athens for over 60 years; the polis was therefore viable even without an ark. We know little about the state budgets of other poleis, but they probably had roughly the same income and similar expenditure.

The financial income of the poleis declined in the 4th century BCE and economic development had reached its limits. In his book "On the Revenues" (*poroi*), Xenophon made suggestions for improving the financial plight of the polis and increasing its revenues (Xenophon, *Poroi* 4, 51). The polis should make better use of its natural resources, trade and crafts should be promoted, the income of the polis should be increased by the metöks, the state should buy slaves and then rent them out at a profit. After all, there could then be 3 slaves for every Athenian, which would ensure that the citizens were provided for. Xenophon's proposals probably corresponded to the wishes of his contemporaries for the polis to provide for them and are at the same time proof of the crisis of the polis. [12: 2166 ff.] The attitude [455] of the citizen to his polis had changed, the rich were striving for more wealth; the poor wanted to be maintained by the polis.

The internal market of the polis was too small for a further intensification of the economy. Foreign trade not only felt the effects of competition from the other poleis, but also, to an increasing extent

In former sales regions, such as the Bosporan Empire, the company's own production increased; sales opportunities declined; the decline could no longer be halted.

The Greek poleis came under the sovereignty of Macedonia and were later incorporated into the Hellenistic territorial states.

In terms of state structure and economic organization, the Hellenistic states were a completely new form of the ancient states. The land was the property of the king; the local farmers worked as serfs who had to cultivate it for the ruler. The situation was better for the immigrating Greeks. They mostly settled in cities, poleis [6: 635 ff.], which were under the sovereignty of the king, but had the privilege of self-administration of their internal affairs. They became centers of Greek craftsmanship and attracted trade, especially the important maritime trade if they were well situated. [6: 490] [9: 69] Some also served as residences, as the king needed the Greeks and Macedonians to support his rule.

The economy of the Hellenistic kingdoms was tightly controlled by the state. [3: 274 ff.] [6: 649 ff.] All areas were covered by a detailed administration and organized according to plan in order to generate the highest possible profits in all areas [6: 600 ff., 605, 608 f.] [9: 50], which the king needed for the army, the administration and the sumptuous court. An elaborate system of levies was therefore set up. [6: 539] The serfs had to rent the land from the king, buy the seed and finally pay him most of the harvest. In addition, they had to provide manual labor, primarily for the constantly recurring repair work on the irrigation systems and road construction. Above all, however, the state needed cash, which it procured in various ways. One way was through monopolies, i.e. certain goods or services could only be obtained from the state. These included salt, oil, beer, textiles and papyrus. Monopoly tenants acquired the right to sell these goods. Despite this burden, in the 3rd century BCE there was still enough left to support the serfs; the later increased exploitation led to their flight and thus to reduced income. [3: 186]

Taxes were leased to tax lessees, who paid the assessed sums to the treasury; they were supported by the state in collecting them. The Greeks also had to pay taxes, e.g. property tax, license tax for carrying on a trade, etc. Customs duties were important. In Egypt, protective tariffs were levied, up to 50% of the value of goods for local products. As there were only a few access points to the country (Alexandria, a few caravan routes), the customs policy was easy to enforce. Instead, there were numerous internal customs duties in the Seleucid Empire.

The economy was managed centrally by a civil service. [3: 219 f.] They were responsible for financial and economic planning, the registration of direct producers, the distribution of seeds and raw materials, the supervision of labor and delivery, and the management of the cadastre. The most highly developed form of this centralized economy was found in Egypt; it was similar in the other Hellenistic kingdoms.

The development of Rome resembles that of Greece in many respects. [6: 624] The basis was agriculture, which in the early Republic was run by the free farmer and his *familia* from the economically self-sufficient farm. After fierce disputes between patricians and plebeians from the 5th century BC onwards, which concerned the right to participate in the *ager publicus* and political equality, the plebeians fought for legal equality with the patricians. Debt slavery was banned in 326 BCE (*lex Poetelia*). There was an economic differentiation between the old aristocracy and the plebeians, and a new class, the nobility, emerged. Due to the numerous wars that prevented the peasants from cultivating their land as soldiers, they became impoverished and were only able to rent a little of the conquered new Roman state land (*ager publicus*), but the nobility acquired large estates. These could only be farmed profitably in new forms (*villa rustica*, *latifundium*). [6: 613 f.] The slaves who had been taken prisoner of war offered themselves as suitable laborers for agriculture, free from military service. [9: 80] This resulted in a complete restructuring of Roman agriculture. The small farms declined; they were replaced by farms with slaves.

cultivated latifundia. With the ruin of the farmers, the number of soldiers also decreased. In 133 BCE, Tiberius Gracchus introduced an agricultural law according to which no family was allowed to own more than 500 iugera (125 hectares) of state land, plus 250 iugera for an adult son. In addition, plots of 30 iugera were to be given to landless citizens. The ruling class, which saw its economic prerogatives threatened, rebelled strongly and the appointed commission encountered difficulties. Tiberius Gracchus was assassinated, but his brother Gaius succeeded in having the law confirmed. The knights were granted the right to tax rents in the province of Asia. Landless peasants were first settled in Roman and Latin colonies (see difference [2: 67 ff.]) to provide for and protect Roman rule. Although unsuccessful in the long run, similar attempts were made again and again, especially by Marius and Sulla in the form of military colonies, and even later by Caesar and Augustus. However, the smallholdings could not compete with the latifundia. The dispossessed peasants mostly migrated to the city and formed the proletariat (*proletarii*) there.

From the time of the Gracchi, cities began to emerge. Craft products were initially produced on self-sufficient farms. Specialized craftsmanship developed slowly and by the 2nd century BCE had reached the same level as in the Hellenistic states and was influenced by them. Trade was also not yet very developed. Only luxury goods or those that were linked to certain areas of production, such as papyrus or some types of pottery, were transported over long distances. An exception to this was the supply of grain and other foodstuffs to Rome and some large cities, which could not be adequately supplied from the surrounding area.

A state budget was created early on due to the requirements of armaments and the payment of salaries. Marius had introduced the mercenary army in 105 BCE. The development of the monetary economy was promoted by contact with the southern Italian Greek cities. The tightly organized financial system included several coffers linked to different purposes and fed from various sources. [6: 672] Direct taxes included the *tributum civium Romanorum*, a property tax for all Roman citizens, the *aes equestre* and others.

More important at the end of the 3rd century BCE were the war indemnities that the defeated opponents had to pay. [9: 78] As much profit as possible was extracted from all conquered territories. The provinces had to provide for the upkeep of the stationed troops, and taxes were levied on state lands, mines and various customs duties. As in the Hellenistic states, these taxes [457] were leased out, but an individual was usually no longer able to advance the enormous sums to the state. Thus, entrepreneurial societies (*societates, publicani*) were formed, which acquired the state leases and soon dominated the economic life of the state, as they alone were able to raise the necessary sums for public works, among other things. [9: 84] Thanks to their special position, only the population of the city of Rome from the 1st cent.

BCE until the imperial era, food was donated free of charge. All important foodstuffs had to be brought in from far away. For this reason, merchants and ship owners were economically favored, but later also placed under control in order to ensure a constant supply for the capital. Due to their importance, grain transports from Egypt and Africa were protected by warships. [9: 97] The storage facilities for grain in Rome and Ostia were constantly improved. [9: 99]

In the 2nd century BCE, the ancient mode of production reached its peak in the Roman Republic, and in the 1st century BCE, commodity-money relations surpassed the level of development of the classical Greek poleis. Trade experienced a tremendous upswing. Roman merchants were to be found in large numbers in the provinces of Asia, Gallia and Africa. The income from the provinces, which accounted for around 4/5 of the entire state budget around 60 BCE, improved the passive Roman trade balance.

Slavery had become the basis of production from the middle of the 2nd century BC. Large slave masses arrived in the Italic region in the 2nd and 1st centuries BC. After the great slave revolts, there was a growing tendency to limit the number of slaves on the large latifundia and to lease out plots and colonies instead (see 2.3.8.).

The civil wars had led to a crisis that highlighted the dangers for the Roman state, as rule over the provinces was at risk; changes in the state apparatus became necessary.

The new form of government that was gradually introduced, the principate, was a monarchist form of government; it was based on the mercenary army and the emerging imperial bureaucracy. The urban Roman and municipal owners of the *villae* formed the social basis. In the first two centuries, the Roman Empire had reached the pinnacle of urban development. Commodity-money relations dominated. Agriculture also reached the peak of its development in the 1st century. Expansion continued in the early imperial period, but the defensive began as early as Hadrian. Border fortifications were erected.

From the Principate onwards, the provinces were partly subject to the senate and partly to the emperor, who received the economically strongest, but also the most endangered provinces with troops. The state budget was divided into a senatorial *aerarium* and the imperial *fiscus* (later there were other special classes). As the *fiscus* provided the funds for the army and the administration, it received the bulk of the taxes and all customs duties and thus became the de facto central financial authority of the empire. This was divided into customs territories with different rates, which usually amounted to 2.5%.

At the end of the 2nd century, however, development stagnated; the crisis of the ancient mode of production began. The exploitation of the population led to their increasing impoverishment, revolts broke out in the provinces, while at the same time the state's expenditure continued to rise. For this reason, the *munera* were introduced, i.e. citizens were called upon to perform services for the state free of charge for one year at a time, for the purpose of building roads and bridges, providing riding and draught animals, granting [458] quarters for civil servants and so on. The richest, the senators and knights, were exempt, so that the *munera* weighed on the wealthy citizens in the municipalities. The cities began to decline. The economic centers of gravity shifted to the eastern provinces. The high costs of the army and administration as well as lower production were the causes of the general decline. Added to this was the decline in the population, which resulted in reduced tax revenues. However, as the state had to continue paying wages and salaries, low-value money was minted, which led to price increases [9: 118], even inflation. Private trade was so damaged by this that the state had to intervene. In order to supply the army, the state operated a weapons and clothing production in the cities. [9: 94] Several emperors tried to counteract the price increases with price regulations, of which Diocletian's price edict on corn tariffs is the best known.

The crisis of the ancient mode of production, the ancient class society, required a new form of state, the dominate. This marked the beginning of the final phase of ancient development. The concentration of power led to a brief period of consolidation. Wealth was concentrated in the hands of a few. With the decline of the cities, trade and crafts declined and the urban population migrated to the countryside. Slavery proved to be a hindrance; small tenancy became more effective on the exempt large estates, and the economy in kind pushed back commodity-money relations.

In his tax reform, Diocletian set a uniform rate of 12.5% for the entire empire. Another new feature was that the revenue was calculated according to the unit of the *caput* and reassessed every 15 years. Thereafter, senators also had to pay taxes. [9: 126] Further state measures consisted of the administrative reform continued by Constantine (finally the division of the empire) and the reorganization of the army. The border soldiers (*limitanei*) were given small estates, which was intended to reduce costs and at the same time counteract the shortage of farmers in the border provinces. The army was now partly paid in natu- ralia, which relieved the treasury, but not the provinces. [9: 125]

The crisis of the ancient mode of production could only be delayed, but not prevented, by the new Dominate form of government. In the 4th century, the process of disintegration of the surviving social system in the Roman Empire began to accelerate and its downfall could no longer be stopped.

Literature:

1 *Andreades, A.*: Geschichte der Griechischen Staatswirtschaft. Munich 1931; 2. *Degrassi, A.*: Scritti van di antichità. Trieste 1971; 3. *Ehrenberg, V.*: Der Staat der Griechen. Zurich/Stuttgart 1965;
 4 *Finley, M. I.*: The Ancient Economy. London 1973; 5. *Hasebroek, J.*: Staat und Handel im alten Griechenland. Tübingen 1928; 6. *Heichelheim, F. M.*: Wirtschaftsgeschichte des Altertums. Leiden 1938; 7. *Kaemmel, E.*: Finanzgeschichte. Berlin 1966; 8. *Oliva, P.*: Sparta and her Social Problems. Prague 1971; 9. *Pekáry, Th.*: Die Wirtschaft der griechisch-römischen Antike. Wiesbaden 1976; 10. *Wilhelm, A.*, in: Sitzungsberichte der Österreichischen AdW, Phil-hist. Kl. 1947, H. 4; 11. *Welskopf, E. Ch.*: Die Produktionsverhältnisse im alten Orient und in der griechisch-römischen Antike. Berlin 1957; 12. *this*, in: Hell. Pol., vol. 4, Berlin 1974; 13. *Weltgeschichte bis zur Herausbildung des Feudalismus*, Berlin 1977.

Reinhard Koerner [459]

2.3.13. City

"Classical ancient history is urban history," Marx emphasized, "but of cities founded on landed property and agriculture ... in the ancient world the city with its landmark is the ecological whole." [MGr 382]

For the ancient mode of production, the structurally determining mode of production of the ancient class society, the ancient private ownership of land, the main means of production, is an important characteristic. This ancient form of private property is characterized by the fact that the owner of land can only be a member of the community, because only as a member of the community is the individual a private owner.

The polis, the progressive form of the state in ancient Greece, was also the community of citizens. Even within the Roman development, the *res publica*, a member of the community is "but also only a Roman, insofar as he possesses this sovereign right over a part of the Roman soil". [MGr 381] The land share of the families was the nucleus of the polis, the *res publica* in political, economic and social terms, i.e. "the form of free ownership of parcels of land by self-sufficient peasants as the prevailing normal form" formed "the economic basis of society in the best times of classical antiquity". [MEW 25: 815]

This structure was preserved for a long time, and urban settlements emerged in the process of the extended reproduction of the village. The city became the center of the polis and the *res publica*, which developed on the basis of land ownership and agricultural culture. The community, the state, was the organization for the defence of private property. "The concentration of residences in the city was the basis of this warlike organization" [MGr 378]. The agricultural town, which emerged as a center of residences, is typical of the first phase of the development of the ancient mode of production, the ancient class society.

The city, in which the population was concentrated in a limited area, was surrounded by walls for defense. The urban settlement was conveniently located for defense and traffic, on trade routes or crossroads, at natural or easily developed harbors. A separate administration was established. The proportion of the population no longer working solely in agriculture increased. New forms of division of labor emerged. The division of labor and exchange relationships became more intensive in the city, trade and crafts developed rapidly (see 2.3.5., 2.3.6.), and new classes emerged. Work in the city was less dependent on the seasons, weather and natural growth. In many branches of production, the work process could be carried out continuously throughout the year. The relative independence from natural conditions, the continuity of work and the increasing division of labor ensured higher productivity of work in the city. The further development of the division of labour, specialization and exchange, the evolution of the circulation and production of goods and the rise of commodity-money relations led to the detachment of the city from the agrarian sphere of production [9]; the contrast between city and countryside emerged. "The basis

of all developed division of labor mediated by the exchange of commodities is the division of town and country. One can say that the whole economic history of society is summed up in the movement of this opposition." [MEW 23: 373]

The fully developed ancient mode of production only developed where an urban center had emerged. The development of slavery was closely linked to the emergence [460] of the city. It was only through the conditions of commodity production in the city that slavery became the determining relationship, the basis of production. The citizens became commodity producers, the slaves commodities.

At the highest stage of development of the ancient mode of production, the ancient class society in Greece from the 6th to the 4th century BCE, the city functioned as the political, economic and cultural center. This progressive development can only be observed in the poleis with an urban center. This context gave rise to the term city-state for the polis; but not every city was also a polis, and not every polis, such as Sparta, had an urban center.

Polis, the original name for the acropolis, became the name for the ancient Greek state. In Homer, *asty* is usually used synonymously with polis (Homer, *Iliad* 21, 607-611; 22, 1; 22, 198; Homer, *Odyssey* 7, 2; 7, 14; 17, 5-6), and is also already distinguished from the polis (Homer, *Iliad* 6, 256-257; 17, 144; Homer, *Odyssey* 8, 514; 8, 516; 14, 472-473). *Asty* means the inner city, the city in the proper sense. For when Thucydides describes how, at the outbreak of the Peloponnesian War, the Athenians who did not live within the city walls now had to retreat behind them, he writes: "When they arrived in the city, very few of them found a home there." (Thucydides 2, 17). In Aristotle, *asty* refers to the city of Athens as opposed to Piraeus (Aristotle, *Politica* 1303 b 12). *Asty* in the plural means the residences, the dwellings, interestingly *wastu* has the same meaning in Sanskrit. *Asteios*, urban - the origin of the adjective from the noun *asty* faded - ' becomes the opposite of *agroikos*, rural, peasant, and denotes the distinguished, educated city dweller.

In the urban centers, admirable achievements were made in all areas. The city represented the political power of the polis; the ancient polis democracy was supported above all by the urban population; the peak of economic development was linked to the city. The city was the focal point for the achievements of poetry, literature, music, theater and philosophy. Architecture and sculpture shaped the image of the city. Ancient Greek culture was a culture shaped by the city.

Within the development of the ancient mode of production in the Greek area, i.e., wherever, as on the Greek mainland, the islands of the Aegean, on the west coast of Asia Minor, the mother country, Greek poleis had emerged in the course of the so-called great Greek colonization, in Lower Italy and Sicily - therefore called *Magna Graecia* (Greater Greece) by the Romans - ' on the coast of southern France, the Iberian Mediterranean coast, the North African coast, the Cyrenaica, and on the coasts of the Black Sea, the development of urban centers in the poleis can be observed [4: 176 ff.]. This development towards the city and urban development, the process of urbanization, has characteristic common features, but did not take place everywhere in the same way, not everywhere simultaneously. [7] Cities emerged 1. gradually from village settlements; 2. where centers and settlements from Mycenaean times already existed; 3. through the merger of smaller towns and villages (*synoikismos*); 4. through new foundations, by settlers from the mother polis, who established a *nea polis*, a new polis, with a city center. [3] [16] Some cities retained the structure of the agricultural town. For many cities, their position as a market town was soon added, and trade was conducted with the neighboring barbarian tribes and surrounding areas. Some cities, in the motherland Athens and Corinth, also Miletus on the west coast of Asia Minor, which was destroyed by the Persians in 494 BCE and never regained its dominant role, Syracuse, Massalia, became dominant political and economic centers, where commodity-money relations dominated the structure. The poleis with their

Athens with 2,600 km² and Syracuse with 4,000 km² were the largest; Corinth had a polis territory of 880 km², Aigina 85 km², Samos 470 km². Accordingly, the population figures were not high either: the total population of the polis of Athens in its heyday (mid 5th century BCE) is estimated at around

250,000, of which 110,000 were citizens with family members, 110,000 slaves and 30,000 foreigners (*metöks*). The poleis were autonomous and endeavored to be self-sufficient. The poleis, characterized by urban centers, were located on the coasts of the Mediterranean and the Black Sea. Athens, about 6 km from the coast, was connected to Piraeus, its port, by a system of walls. The cities were protected by walls; although the early city layouts were not very systematic, a typical principle of urban planning with a rectangular network of streets soon emerged, which is associated with the name of Hippodamus of Miletus. [20] Piraeus, the port city of Athens, was expanded by him in the 5th century BCE and Thurioi, a city founded on Athenian initiative in Lower Italy in the 5th century BCE, was planned by him. But the Etruscans seem to have laid out their cities in a similar way even earlier. The cities founded in the 4th century BCE, the city foundations of the Hellenistic rulers and the Roman city foundations were planned and laid out according to this principle. Characteristic of the Greek cityscape is the *agora* [8], the center of social life, where the people's assembly met, where the various polis institutions and their offices were located, where places of worship and justice and the well houses were situated. In early times, dramatic plays were staged on the *agora* and sports competitions were held. Theaters, stadiums and *gymnasiums* took over these functions. The *agora* increasingly developed into a marketplace where trade took place, surrounded by the workshops of craftsmen. [10] [12] [15]

In the most developed poleis of the motherland and the Aegean, but also in the poleis on the Black Sea coasts, in Lower Italy and Sicily, the 4th century BCE saw crisis phenomena of the most varied nature. [18] In them, the division of labour and specialization, production for the market, the monetary system and commercial capital, the development in the urban centers - while at the same time the farmers and agriculture were left behind - led to a change in the political, economic and social structure. [9] The differentiation among the citizens became ever greater, the wealth of the rich was more important than the polis, the poor wanted to be maintained by the polis, Lysias noted (31, 6). The decline of the polis, the community of citizens, could no longer be halted. Due to its small size, the polis became a stumbling block to further development. The limits of the polis also became apparent in military terms; it was no longer a matter of course for citizens to go to war for the polis; the mercenary system was spreading, with its high costs. A polis could no longer afford the siege engines created by advances in mechanics. Individual poleis attempted to create larger territorial units by subjugating others.

During this period, the leading Greek poleis experienced their crisis, their decline, but new cities emerged in areas that had previously lagged behind. This process can be observed in Achaia and Arcadia.

In the Greek sources, the term "polis" for city had become established. It remained even after the poleis had lost their autonomy - they came under the sovereignty of Philip II of Macedonia - and were later incorporated into the Hellenistic territorial states. The term polis for city lived on. For later Greek [462] authors, such as Pausanias, the characteristics of a "polis" were public buildings, theaters, agora and residential buildings. (Pausanias 10, 4, 1) Philip

II of Macedon founded new cities in Thrace. This was the first time that newly founded cities were named after the ruler, a development that became common in the Hellenistic states under Alexander and his successors. With Alexander's conquest of the Persian Empire, the process of the expansion of new cities in this area began. The newly founded cities in the Hellenistic states appear to have been important for the rulers, as Alexander is said to have designed the plan of Alexandria himself (Arrian 3, 1, 5), Antigonos personally supervised the construction work of Antigoneia in 306 BCE (Diodorus 22, 47), and Seleucus was present at the founding of Seleukeia on the Tigris (Appian, Syria 58).

The rulers' interest in the cities, but also the cities' connection to the ruler, is made clear by the naming of the cities, as a large proportion of the cities bear the names of the founders. It was certainly an honor for any city to be able to boast that it had been founded by Alexander. Perhaps this helps to explain why Plutarch speaks of around 70 city foundations (Plutarch, *De Alexandri fortuna* 1, 5). Appian reports that Seleucus founded some cities in honor of Alexander (Appian, *Syriaca* 57), and Lysimachus is also said to have done the same (Strabon 13, 599). A large number of Alexander's foundations are very dubious. [17: 146] The cities were certainly often founded for military reasons, as Arrian testifies for Alexandria on the Tanais, as a bulwark against the Scythians (Arrian 4, 1, 3), but of many cities it is also said that Alexander had the city built so that it would become rich and powerful (Arrian 3, 1, 5; 5, 1, 3). Appian records that the city of Lysimacheia was built as a bulwark against the Thracians (Appian, *Syriaca* 1).

Appian reports on the cities founded by Seleucus: 16 Antiocheia, 5 Laodiceia, 9 Seleucia, 3 Apameia, Stratonikeia and a further 16 cities in Syria, 5 in Parthia etc., a total of 59 (Appian, *Syriaca* 57). The most important are the 4 large cities of Seleukeia in Pieria, Antiocheia on the Orontes, Apameia on the Orontes and Laodikeia by the sea. Various forms of origin can be identified: genuine new foundations, cities created by *synoikismos* and from military bases, as well as renaming of oriental cities.

In contrast to the classical poleis, the cities were politically dependent on the respective ruler, who appointed an official responsible to him, but in inner-city matters the structure of the offices, the urban life in the newly founded cities was designed according to the model of the polis, the architecture of the city and its urban character corresponded to Greek ideas. However, this does not mean that the population of these cities were only Greeks and Macedonians; the majority of the population were locals. Very often the settlement was not voluntary. The indigenous population was settled by force, by order of the ruler.

The development of the cities was undoubtedly promoted and revitalized by the Hellenistic rulers, although it should not be overlooked that the various ancient oriental cities continued to exist.

The majority of the townspeople were not farmers, but lived mainly from non-agricultural production and the exploitation of agricultural land.

The founding of cities strengthened the urban element and promoted trade and crafts. Alexander had broken with the Achaemenid system of accumulation; he had the treasures minted into money and thus increased the circulation of money. A [463] uniform coinage system facilitated exchange. Long-distance trade was an important source of income for the Dindochids. The Seleucids endeavored to direct the old trade routes from India and the Far East to port cities that they had newly built and owned. The Ptolemies also built port cities in order to increase trade between Arabia and Egypt. There were fierce disputes between the Ptolemies and the Seleucids over the old trading cities of Syria and Phoenicia, which were important centers. The Seleucids controlled the most important trade routes and new cities were built by them at the Euphrates and Tigris crossings, such as Seleukeia. The old cities of Asia Minor were also important, as trading centers that ensured a steady income through regular payments. Taxes and duties were levied in the cities when crossing the borders of the satrapies. All cities were obliged to pay taxes, and only rarely were they granted exemption. However, the cities also profited from the exchange, the commodity-money relations, which extended beyond the Hellenistic states. Hellenistic coins were widely used - in the Balkan region and in Gaul they provided the model for local coinage. Hellenistic influences can be seen in Carthage and also extended to Numidia; the influence of Hellenistic development on Roman development is well known.

The ancient mode of production, ancient private property, ancient relations of exploitation, slavery, spread to the Hellenistic states via the cities, especially the trading cities of Asia Minor, Phoenicia and Syria. But ancient oriental property relations also penetrated the Hellenistic states.

and forms of dependency into the cities. All Hellenistic kings founded cities. The Ptolemies founded only Ptolemais in Egypt, but cities were founded in Cyrenaica, Syria and Cyprus. In contrast to the so-called great Greek colonization of 750 and 560 BCE, which was not centrally controlled but originated from individual mother poleis, where an autonomous *nea polis* was founded by the emigrants and the agrarian character, the occupation of land and soil was decisive at the beginning, the Hellenistic rulers founded new cities, but no autonomous poleis. The new cities were not confined by polis boundaries, many were larger than the urban centers of the poleis had ever been, but were not ethnically unified. The cities founded in the interests of the Hellenistic kings were planned and laid out, then the inhabitants were settled. The *agora* served less as a meeting place than as a marketplace. The ancient polis set the pattern, probably because the Hellenistic rulers, supported by a Greek-Macedonian minority, wanted to create a homely environment for them, but the cities were dependent on the ruler and his benevolence. Power-political aspects played a role, with troop contingents located in many cities. Economic and trade policy considerations were at the forefront of many city foundations. Alexandria was the "largest trading center in the world" (Strabon 17, 1, 13) with a free population of 300,000 inhabitants (Diodorus 17, 52). Last but not least, efforts to create new representative centers may also have played a role. The Hellenistic cities profited from the commodity-money relationships that extended beyond the Hellenistic states. They were centers of commodity production and exchange; the ancient mode of production prevailed in them, while in the surrounding large areas the old oriental mode of production remained dominant. Development in the Hellenistic states soon stagnated and most of them were incorporated into Rome's territory. [5]

In the first phase of the development of the ancient mode of production, the ancient class society in Italy, Rome was a typical [464] agrarian city until the 3rd century BCE. The Roman private landowners, the Roman farmers, were the bearers of the development of the *res publica*, the ancient Roman state of that time. [14] Rome, the *urbs*, retained a special status; the Roman citizens were the only fully entitled citizens of the state, the *res publica*. In the course of Rome's conquest of Italy, some cities were granted Roman citizenship, while others were granted lesser rights. Colonies were established in the newly conquered territories, military and agricultural settlements, and the highest-ranking had Roman citizenship; thereafter there were a variety of gradations in legal status, which was also reflected in the terms used for the cities. The subjugation of the Italic tribes and cities by Rome was not synonymous with the formation of a centralized state. Rome remained a city-state that bound the subjugated tribes and cities to itself through various treaties. Cities that retained their independence in internal affairs were called *municipia*; they were granted Roman citizenship, some with full rights, others were *civitates sine suffragio*, without voting rights. The majority of the cities, however, belonged to the *socii*, the confederates, without independence. The highest-ranking cities were the colonies of Roman citizens.

From the 3rd century BCE onwards, especially after the victories over Carthage and the incorporation of Hellenistic territories (Asia Minor, Macedonia, Greece) into the Roman dominion, commodity-money relations also began to establish themselves in Rome. This also changed the political, economic and social structure. Urban development and the expansion of the city system increased rapidly. [13] These cities also showed a variety of gradations in legal status, which was essential for tax levies. Along with the cities, the ancient mode of production had also fully developed in Rome's territory; the heyday of ancient class society in Rome from the 2nd century BC to the 2nd century AD was characterized by a high degree of social integration.

BCE to the 2nd century was also the high point of slavery; slavery now formed the basis of production. Rome's achievements were linked to urban development; the Romanization of the provinces was based on the expansion of the urban system. [1: 1 ff.] [2: 31 ff.] [11] In Italy alone, the number of cities is estimated at 1,200 in the 1st century, with a total population in this area of around 16 million. The craftsmen's workshops in the cities initially produced their goods mainly for local needs, for the area around the cities. Some cities specialized in certain tools and objects necessary for agriculture. For Cato, it was very important to have his estate close to a larger town.

(Cato, *De agri cultura* 1, 3). Although production for export had already begun in the Italian cities, especially bronze and copper products from Campania were exported, the import of luxury goods from the eastern provinces predominated.

In the cities, colleges of merchants and craftsmen were formed, in which both free and slaves could be members. The number of towns in the provinces also increased enormously. Cities emerged from the centers of tribal settlements, from villages. Many were originally veteran colonies or emerged from settlements that formed near legionary camps. The highest-ranking were *coloniae*, followed by *municipia*, then *civitates* of various ranks. Most were *civitates stipendiariae*, i.e. subject to taxation. At the head of the city was the municipal senate, the *curia*. The civil servants were based on the Roman model. Greek, Hellenistic traditions were preserved in the eastern provinces. The cities had relative self-government, but this was increasingly restricted in the course of the imperial period. At the beginning of the imperial period, tax collection was transferred to the cities. The highest officials, the decurions, were also materially responsible. The [465] relative autonomy was increasingly lost. The old cities of the eastern provinces were ecologically stronger, as trade and crafts were based on the old traditions and played a greater role. [6] Specialization had increasingly developed in the cities of the eastern provinces. Strong commercial traffic, promoted by road construction, revitalized these provinces.

From Syria and the Phoenician cities, purple, stained glass, goldsmith's work and bronze weapons were in demand in both the East and the West, as were woolen and silk fabrics and linen. Trade with India and China passed through Syria. However, the largest trading center of the eastern Mediterranean was Alexandria, where the trade routes from the Red Sea converged. The North African cities also developed favorably from the 1st to 3rd century, and Carthage, like Alexandria, retained its importance as a trading center until the last centuries of the Roman Empire. In the western provinces, large estates outside the cities became more powerful. The decline of the cities - in the further course of development they were only fiscal centers, losing more and more of their economic importance as the natural economy became dominant again - indicates the decline of the ancient mode of production, slavery lost its economic importance. As late as the 4th century, however, Libanios spoke of the Roman Empire as "the cities" (Libanios, *Orationes* 2, 26; 14, 25; 18, 104). The ancient city, ancient urbanization were a characteristic element of the ancient mode of production, the primacy of the city, the rule of the city over the country had emerged. At the end of ancient class society, the countryside began to dominate the city again. [19: 95]

Literature:

1 *Abbot, F. F./Johnson, A. Ch.*: Municipal Administration in the Roman Empire. Princeton 1926; 2. *Berchem, D. van*, in: *Akten des VI. Internationalen Kongresses für Griechische und Lateinische Epigraphik* München 1972. Munich 1973; 3. *Gerkan, A. von*: *Griechische Städteanlagen*. Berlin/Leipzig 1924; 4. *Hammond, M.*: *The City in the Ancient World*. Harvard 1972; 5. *Jones, A. H. M.*: *The Greek City from Alexander to Justinian*. Oxford 1940; 6. *Ders.*: *The Cities of the Eastern Roman Provinces*. Oxford 1971; 7. *Martin, R.*: *L'urbanisme dans la Grèce antique*. Paris 1956; 8. *Ders.*: *Recherches sur l'Agora grecque*. Paris 1951; 9. *Musiolek, P.*, in: *Studien zur athenischen Sozialstruktur und römischen Wirtschaftspolitik in Kleinasien*: Berlin 1977, p. 87 ff.; 10. *Parnicki-Pudelko, S.*: *Agora, Geneza i Rozwój Rynku Greckiego*. Warsaw 1957; 11. *Reid, J. S.*: *The Municipalities of the Roman Empire*. Cambridge 1913; 12. *Robinson, H. S.*: *The Urban Development of Ancient Corinth*. Athens 1965; 13. *Rudolph, H.*: *Stadt und Staat im römischen Italien*. Leipzig 1935; 14. *Štaerman, E. M.*; in: *Vizantijskij Vremennik* 1973 (34); 15. *Thomson, H. A./Wycherley, R.*: *The Agora of Athens*. Princeton 1972; 16. *Tritsch, F.*, in: *Klio* 1929 (22); 17. *Tscherikower, V.*, in: *Philologus* 1927 (Supplbd. 19), H. 1; 18. *Welskopf, E. Ch.*, in: *Hell. Pol.*, vol. 4, p. 2141 ff.; 19. *Dies*, in: *JWG* 1975, T. II, p. 89 ff.; 20. *Wycherley, R. E.*: *How the Greeks Built Cities*. London/Melbourne/Toronto 1962.

Peter Musiolek [466]

2.4. Feudal mode of production

2.4.1. General characterization of the feudal mode of production

Feudalism is the social formation that immediately preceded capitalism. It is a mode of production in which the majority of land, as the most important means of production, was owned by a minority, while the majority did not own land. The minority realized their ownership by lending land to independent farmers in return for personal services and taxes. The majority of producers paid a land rent for this transfer of ownership. Feudalism emerged from the disintegrating slave-owning society or the disintegrating primitive community. In Western Europe, the feudal society had been forming since the end of the 5th century, in Eastern Europe from the end of the 10th century in the process of the subjugation of the free communal peasants by the nobility and the church in the course of fierce class struggles, and in Byzantium in the 10th century. In the Near and Middle East, it advanced with the establishment of the Abbasid caliphate (750-1258), while the Asian nomadic peoples mostly developed a military feudal system in the course of far-reaching conquests, which had a number of special features compared to agrarian societies. [37: 128 ff.]

The *emergence* of feudal production relations generally took place in a variety of forms, but their essence was determined by uniform laws. Through the monopolization of the ownership of land, herds and pastures by a ruling minority, the peasant producers or cattle breeders became personally and economically dependent and were forced to perform additional work and pay taxes for them. Feudal production relations also arose through the transfer of land to slaves and colons to run independent farms in return for services and taxes or to free peasants to supplement their own farms. *Agriculture*, which gave the feudal economy a natural economic character, formed the basis of all agrarian societies. As Marx emphasized, it was associated with,

"domestic handicraft and manufactory work, as ancillary to agriculture", which in their organizational combination formed "the condition of the mode of production on which this natural economy is based". [MEW 25: 794 ff.] In European feudalism, the most important means of production, the land, was predominantly in the private or collective ownership (church, monasteries) of an exploitative minority. This monopoly of property included landlordism and serfdom of the producers, their attachment to the land and thus their personal dependence on the landowner.

"The power of the feudal lord," wrote Marx [MEW 23: 745 f.], "was not based on the length of his rent-roll, but on the number of his subjects, and the latter depended on the number of self-sufficient peasants. Although, therefore, after the Norman Conquest, the English soil was divided into immense baronies, one of which often included [467] 900 ancient Anglo-Saxon lordships, it was populated by small farms, interspersed only here and there with larger manorial estates." The land granted to large and small lords and the church by the king, the *feudum* (hence the name "feudalism"), was transferred with the farmers, as this was the prerequisite for the new owners to be able to squeeze a land rent out of it. The fief as conditional landed property tended to be transformed into unrestricted feudal property and to merge with the nobility's service-free lands, the allodial estates. [10: 79 f.] The fief was sub-lendable, so that a fief pyramid developed, which extended from the king to the crown vassals, vassals and after-vassals, and which formed the political organization of the ruling class in Europe. In ecological terms, the power of the feudal nobility rested on the manorial lordships, which were made up of the manorial land and the peasant tillage land. The former generally comprised the smaller part of the area and was used directly by the feudal lord's serfs (servants, maidservants) and peasants who were liable to pay taxes. Typical of feudal property was the dispersed ownership, the overlapping of property and rights, which was expressed politically in the early stages in the so-called feudal fragmentation and the lack of centralized monarchies. Bourgeois historiography often sees the actual essence of feudalism in this characteristic, but not in feudal production as a class-antagonistic mode of production. [37: 174]

Non-economic coercion played an important role in the feudalization of the free communal farmers and free shepherds. Through the use of naked force, jurisdiction and war obligations, the transfer of free peasant property (allode) into manorial property and the transfer of the land for use (possession) in return for taxes and services to the immediate producers were enforced. Engels wrote that in the Middle Ages "it was by no means the expropriation of the masses *from* the soil, but rather their appropriation *of* the soil that was the basis of feudal pressure. [MEW 21: 339] Extra-economic coercion existed above all during the transition from gentile to class relations, but did not disappear completely even after the establishment of feudal relations of production. It resulted from the fact that the dependent peasants owned their own farms, were relatively independent and evaded manorial obligations in many ways. [37: 138] Therefore, according to Müller-Mertens, extra-economic coercion cannot be attributed to state power, since it resulted from the sphere of property and was based on the limited ownership of the lord in the person of the producer; i.e. it was not indispensable for the maintenance of the system, but that in feudalism there was the possibility of basing exploitation on economic coercion, which had a beneficial effect on the further development of the productive forces. [22: 565 f.] According to Poršnev, the economic dependence of the peasant on the landowner represented a significant advance over slavery, but the immature relationships on an economic basis, interspersed with many personal ties, made extra-economic coercion necessary, and it depended on concrete historical conditions what intensity it assumed and how long it lasted. [25: 43 f.].

In the early phase of feudalism, the property relationship was realized as a direct relationship of servitude. The peasants, who had become dependent, cultivated the land, which was mostly hereditary property, with their own instruments of production. The personal dependence of the peasant on the feudal lord ranged from bondage and serfdom to a simple land rent obligation with few legal [468] restrictions. [22: 564] The feudal land rent appeared as labor and product rent, and with the advance of the commodity economy as money rent. The first two forms played the most important role in the early stages and in the beginning heyday of feudal society. The labor rent was based on direct labor services (Fron) for the landlord on his land. It was differentiated both in time and space from the work that the peasant performed in his economy. Marx called the *labor rent* "the simplest and most original form of rent", in which rent and surplus value coincide. "The labor of the immediate producer for himself is here still spatially and temporally separated from his labor for the landlord, and the latter appears directly in the brutal forced labor for third parties." [MEW 25: 800] Serfdom was derived from this, as it was needed to force the peasants to perform serf labor. Due to the low effectiveness of this primitive exploitation, the product *rent* gradually replaced the labor rent in Western Europe with the consolidation of the rule of the secular and clerical feudal nobility and the increasing surplus product of the peasant economies, without the latter disappearing completely. The product rent did not change the nature of the basic rent, for this is the only dominant form of surplus product or surplus labor. Marx emphasizes that the product rent requires a higher cultural level of the producer and that the surplus labour "is no longer to be performed in its natural form, and therefore no longer under the direct supervision and compulsion of the landlord or his representatives; rather, the direct producer has to perform it under his own responsibility through the power of circumstances instead of through direct compulsion" [MEW 25: 803]. Now the labor of the producer for himself and his labor for the landlord were no longer "tangibly" separated in time and space. As before, the product rent also presupposed an economy in kind and the combination of agriculture and crafts. The farmer had greater scope to produce more products that belonged to himself, which increased his labor productivity. The old feudal system fell apart, the amount of farmland decreased and was transferred to the peasants as land for rent.

Since the 11th century, improvements in production tools such as iron plowshares, the use of harrows, the construction of water and wind mills and new cultivation methods have been documented in Europe. The transition from two-field to three-field farming was essential for increasing crop yields.

significant. Human nutrition improved both quantitatively and qualitatively (vegetables, meat), which had a direct effect on the increase in population. [13: 42 f.] [35: 66 ff.] In Italy, the population increased from around 5 million to 7-8 million from the middle of the 10th to the end of the 13th century [7: 417]; in northern France around 1100, 15% of peasant families had more than 3 sons, in 1175 it was 30%, between 1176 and 1250 already 42%. [6: 13] The food base expanded due to the expansion of cultivated areas. Clearing, diking and draining swamps were among the great civilizing deeds of the medieval farmers. The new settlers in the "new quarries" not only devoted themselves to agriculture, but also increasingly raised livestock, which meant that meat production became more important within the peasant economy. At the same time, clearing farmers gained greater personal and economic freedoms compared to their relatives in the old lowlands, which favored a social differentiation of the peasant class. [8: 147 ff.] In any case, European internal colonization was the work of the immediate producers, even if the feudal nobility intervened to organize and steer the flow of peasant settlements into manorial channels.

[469] The landlords used part of the peasant surplus product concentrated in their hands for agricultural purposes, for improving the means of communication, and so on. The aim of all lordly activities was to increase income, to siphon off the growing peasant surplus. Centralization measures within the manorial estates, standardization of the tax system, establishment of mills, breweries and baking ovens, which the landowners had to use in return for appropriate taxes, served this purpose. [9: 256 f.] At the same time, the lords of the manor missed no opportunity to encroach on the common property of the peasants, the commons, and to appropriate parts of the forest, meadows and pastures, transforming them into private property. [19: 277, 422 ff.] The tenacious struggle for this peasant collective property ran through all phases of feudalism and was an integral part of the medieval class struggle. Without the right and the possibility of using the commons, peasant farms, especially the smaller ones (with less than one hoof of land), could hardly exist. The poorer members of the village community were dependent on the commons to maintain their small livestock.

The feudal nobility created local craft and trade centers in their lordships, which often developed into early urban settlements. Peasant ownership as the basis of the feudal mode of production enabled the emergence and spread of simple commodity production, the second and third social division of labor (separation of agriculture and handicrafts, of crafts and trade) as well as the emergence of non-feudal *towns*, which very soon led to a change in the methods of exploitation and a change in the forms of rent. Due to the progressive increase in the social division of labor, the share of exchange value in total production became important. In adapting the feudal relations of production to the development of the productive forces, the *money rent* replaced the product rent and the labor rent. [Marx emphasized that the transition from the product rent to the money rent presupposed a significant development of trade and industry, of commodity production, money circulation and a market price for products. [MEW 25: 806] The market now came between feudal lords and peasants as a factor independent of them. "Not only the market relation of the money rent is to be seen here, but also the market relation of the surplus product which the feudal lord himself brought to the market, together with the repercussions of this on his relation to the feudal peasant." [22: 573] The peasants' dependency on their landlords changed from verbally agreed habits (*consuetudines*) to written agreements with the money rent. The trend was towards the transition from landowning feudal peasants to landless tenants, the expropriation of the medieval landowning producer and the emergence of capitalist tenants or agricultural laborers. However, this possible direction did not materialize until the 15th and 16th centuries in some European regions such as England and Tuscany. It initiated the transition from feudal to capitalist land rent and offered opportunities for the growth of society as a whole, for historical progress.

The aim of all production under feudalism was the appropriation of the peasant surplus by the ruling class using a variety of methods of exploitation. This goal corresponded to the *basic economic law of feudalism*. The antagonistic contradiction inherent in the feudal relations of production resulted from the existence of small peasant farms and the land [470] monopoly of a minority, whereby the producers were tied to the land and their production interests were limited by exploitation and servitude. [25: 66] [37: 138] The consequence of this basic contradiction was class antagonism between peasants and feudal lords. The main driving force behind this development was the permanent class struggle that broke out over the distribution of the peasants' surplus produce. The more successful the peasants were in this struggle, the more progressively the state and society developed. Rural producers had to pay the full cost of reproducing their labor, their families and their economy. If they were left with an appropriate share of the surplus product, then not only simple but, within limits, extended reproduction, an increase in the means of production and production for the market were possible. From this point of view, the change in the forms of rent reflects the spontaneous efforts of the ruling class to adapt exploitation to new production conditions in order to be able to skim off the increasing surplus product. [25: 76, 85]

The full development of the feudal mode of production began in Europe around the middle of the 11th century with the concentration of crafts and trade in the cities, the rise of non-feudal classes of merchants and craftsmen and the expansion of commodity production. The simple production of goods united producers and owners of the means and instruments of production in one person. This distinguished the urban producer from the rural one. [28: 23] Nevertheless, this did not lead to the dissolution of feudal production relations, but rather to their full development.

Commercial production in the cities only achieved economic significance through its integration into market relations. Only the connubium of small-scale production and trade guaranteed political emancipation from feudal urban rule, which was achieved in often fierce battles, such as those that flared up in the communal movements. Nevertheless, urban production and trade served feudalism, the urban classes remained organically integrated into feudal society and had a transitional character. Highly developed feudalism without cities is not verifiable and hardly conceivable, because their absence meant an immature division of labor between agriculture, crafts and trade. [20: 93, 95] The relationship between town and country in feudalism presents itself as a dialectical unity of opposites, reflecting the relationship between simple commodity production and the natural economic basis of the economy. Even if small-scale commodity production and the city were not specifically feudal phenomena, there was a close connection between the scale of commodity production and the expansion of the city and the evolution of society. Thousands of small towns, which were close to villages in their external physiognomy but in which crafts and local trade outweighed agricultural activity, played a particularly important role in the creation of an urban network. They contributed significantly to the expansion of the urban way of production and life, forming links between the medium-sized and larger communities on the one hand and the villages on the other, from which they obtained their raw materials. [On the other hand, urban liberation radiated from them to the surrounding villages, although it should not be overlooked that the majority of urban settlements only achieved partial liberation from feudal shackles and the phrase "city air makes you free" was only valid for the large communes of Western and Central Europe. The communal movements as a whole had a "conspiratorial and revolutionary character" [MEW 28: 283], even when they wrested privileges from the feudal city lords by peaceful means. [471] Through them, a class of dependent people succeeded for the first time in the Middle Ages in asserting themselves against the ruling class not only with economic but also with political demands.

In this way, craftsmen and merchants helped new forms of feudal production relations to break through. [12: 179] The craftsmen united in guilds, the merchants in guilds.

Marx and Engels wrote: "The necessity of association against the robber nobility of association",

"the need for common market halls at a time when the industrialist was also a merchant, the growing competition of the runaway serfs flocking to the flourishing cities, the feudal organization of the whole country brought about the *guilds*." [MEW 3: 24 f.] The guild united the masters of a craft or several related crafts. It regulated craft production down to the smallest detail, determining the technology, processes and instruments of production, the number of journeymen and apprentices, the price and quality of the goods. There was hardly any division of labor in the workshop. With the rapid development of goods production, the opportunity for journeymen to become master craftsmen diminished. They were reduced to wage laborers. The guild incorporated the new concept of work that developed in the city into its statutes. This conception of labor became a powerful lever in overcoming the natural conditions of social production and reproduction and replacing them with artificial conditions created by society. [MEW 26: 3, 246 f.] The main tasks of the merchant guilds consisted in the struggle against competitors, in the regulation of weights and measures, in price fixing and the protection of guild members against interference by the feudal nobility. [37: 147 ff.]

As urban production and lifestyles became more concentrated from the 14th century onwards, commodity-money relations increasingly influenced the agricultural sector and, in the wake of the mass transition to money rents and the further expansion of artisanal production, led to increased exploitation of the countryside by the city. The intensification of the commodity economy meant that the countryside gradually lost its clearly agrarian character. Special forms of division of labor emerged between town and country. Marx saw "the basis of all developed division of labor mediated by commodity exchange" in the "separation of town and country". It could be said "that the whole economic history of society is summed up in the movement of this opposition. [MEW 23: 373] The forced and intensive penetration of commodity-money relations into agriculture stimulated agricultural production, promoted the peasants' striving for full disposal of their products and intensified the contradictions between feudal large-scale property and peasant smallholdings.

In the most economically advanced areas of Europe, such as northern and central Italy, Flanders and England, *early forms of capitalist commodity production* emerged in the 14th century, but especially in the 15th century, commercial and usury capital sporadically influenced the industrial sector, publishing and the first scattered cloth manufactories developed. These early capitalist production sites did not yet capture social production in its entirety, nor did they transform it, but their "own narrow technical basis came into conflict at a certain stage of development with the production needs it had itself created". [MEW 23: 390] In the 15th century, this did not yet result in an antagonistic contradiction between the productive forces and the relations of production, but rather a mismatch based on the boom in simple commodity production. [29: 424]

For this reason one should not yet speak of a *crisis of feudalism* [472], as is occasionally done in the works of bourgeois, but also Marxist historians. [14: 8 ff., 45 ff.] Poršnev rightly criticized the fact that such a concept of crisis already understands the spread of commodity-money relations as a symptom of the decomposition of the feudal mode of production. It overlooks the fact that the basis of the money rent remains the same as that of the product rent. [25: 184] The producer was still the "hereditary or otherwise traditional owner of the land, who, as the owner of its most essential condition of production, has to pay the landlord surplus forced labor, i.e. unpaid labor performed without equivalent, in the form of surplus product transformed into money". [MEW 25: 805] Barg therefore characterized the socio-economic changes in the 14th and 15th centuries as a qualitative leap in the feudal mode of production, which had nothing to do with a crisis of formation. Rather, only the old landlord system had fallen into decay, but by no means feudalism, which had now reached its most mature form. [2: 195 f., 203 f.]

Overall, however, this was an economic and social structural change that did not determine the heyday but the late phase of the feudal mode of production. The following clearly stood out

This phase marked the end of the economic *supremacy of the city* over the countryside. The cities exploited the countryside everywhere with economic means such as monopoly prices, guild coercion, commercial fraud and usury. Price regulations, market coercion and production restrictions by the guilds kept the prices of urban products high. In the peasant economies, this was accompanied by grain overproduction, which caused prices for agricultural produce to fall. The result was a gap between the prices of agricultural and industrial products. Farmers attempted to halt this detrimental development by switching from grain production to livestock farming, as there was a great demand for meat in the cities and this generated high incomes. The transformation of arable land into pastureland should not be equated with a decline in agriculture, but rather the transformation of the agricultural structure as a whole should be kept in mind. The price gap also affected the feudal nobility. Initially, it tried to pass on the loss of rents to the peasants by increasing the rate of exploitation and intervening in market relations by lowering the value of coins. [2: 207] Social and political reactions to the economic metamorphoses in the 14th and first half of the 15th century were robber baronage, numerous feuds between large and small nobles as well as wars between powerful feudal lords and between monarchies such as between France and England in 1337-1453 (Hundred Years' War). The peasants defended themselves in powerful uprisings against plundering and excessive oppression in northern France in 1358 (Jacquerie), against serfdom and the burdens of crisis in England in 1381, against usury in Spain in 1391 (Jewish pogroms) or against the Church and the papacy and the foreign and domestic reaction associated with them in Bohemia in 1419-1434. These massive class battles shook the feudal social order to the core, but at the same time forced the ruling class to look for new and progressive forms of government that would better accommodate the growth of productive forces and pave the way for further development in all areas. [3: 107] This manifested the decisive role of the masses as shapers of history. At the end of the 15th century, centralized feudal monarchies emerged in Western Europe, administered by orderly authorities, which developed into bourgeois nation states from the 16th century onwards.

In the cities, the 14th and 15th centuries saw a polarization of ownership, with long-distance traders, publishers, usurers, bankers and individual guild [473]masters accumulating more and more wealth on the one hand, and craftsmen, grocers, day labourers and journeymen becoming increasingly impoverished on the other. The differentiation of urban producers resulted from the different individual time required to produce goods. Since the market price depended on the amount of labor required by society, those who were able to produce goods in less time than their competitors necessarily had an advantage on the market. As a result, some producers of goods were reduced to casual and wage laborers, while others became rich. Ruined guild masters, unemployed journeymen and the urban poor often rose up against the rich and politically ruling classes in the communities, such as the weavers and walkers in Ghent in 1302 and 1360, without these riots exceeding the framework of feudal production conditions. They still moved entirely along the lines of medieval civil struggles. [31: 69, 78] The intensification of social antagonisms in the Flemish cities was the consequence of the transfer of wool production to the countryside in order to avoid the guild barriers and make use of cheap peasant labor. English textile production was already firmly established in the baronies at that time, and the large Ravensburg trading company controlled numerous "weaving villages" from which it bought the linen. Milanese and Genoese entrepreneurs and traders in Lombardy dealt with perch production in the same way. [15: 80] All this shows that the textile industry in Europe in the 14th/15th century did not go through a crisis, but that the changes were a change of location that increased, not decreased, the productivity of this trade. The decline in the production of expensive cloth in Italy is also not suitable to support the crisis thesis, as it was offset by a considerable increase in the production of mass-produced goods in Flanders, the Netherlands and England. In these new production areas, not only did merchant and usury capital dominate, but here the merchant subjugated the small producers of goods and made them work for him, degrading them to wage slaves, or the merchant himself became an entrepreneur, as in Florence, Siena and Perugia, where he founded cloth manufactories and employed small master craftsmen and journeymen.

into pre-proletarians. These scattered manufactories were still closely intertwined with the feudal milieu, lacked their own political superstructure and employed skilled labor. [25: 156 ff.] The uprising of the Ciompi in Florence in 1378 led to a confrontation between capital and labor for the first time in history, thus pointing beyond the anti-feudal front position of the bourgeois struggles. Nevertheless, the manufactory capitalist approaches still belonged to the late feudal phase, as they were spontaneous, local phenomena with no overall social anchoring. The Italian manufacturing towns did not find their way out of feudalism, even if they changed it qualitatively. [The insufficient development of capitalist elements, the lack of an internal market, led to a slowdown in the pace of the replacement of the feudal by the capitalist mode of production in countries such as Italy. This was also linked to the spread of the mezzadria, which, although it represented a new form of contract between landlords (burghers) and tenants (landless peasants), did not grow into a capitalist rent, but preserved purely feudal elements, such as the personal dependence of the tenant on the landlord. [36: 125] Around the same time in northern France, in Picardy and Champagne, early capitalist methods of capital utilization also began to assert themselves in individual towns, competing with the small-scale production of goods by guilds. However, such germs of capitalist production were subject to even narrower limits than in Italy, both due to the low level of capital accumulation, the lack of labor released from crafts and agriculture, and the inhibited development of new industrial productive forces. Finally, the resilience of feudal production conditions in the agricultural sector played a special role through their adaptation to the advancing commodity production. [30: 19] "Although the first beginnings of capitalist production appear sporadically in some cities as early as the 14th and 15th centuries, the capitalist era only dates from the 16th century." [MEW 23: 743] According to this, the crisis and decline of feudalism must be dated from the 16th century, but not from the

14th century. Marx recognized: "The prelude to the revolution that created the basis of the capitalist mode of production took place in the last third of the 15th century and the first decades of the 16th century." [MEW 23: 745 f.] For Engels, a new epoch began with the fall of Constantinople in 1453. [MEW 20: 311] According to Engelberg, the actual manufacturing period with its cooperation based on the division of labor, the "characteristic form of the capitalist production process" [MEW 23: 743], only began after the early bourgeois revolution of 1517-1536. [11: 1243]

First, the separation of property and ownership had to be abolished and brought into line, either on the part of the feudal lord or the peasant, in order to dissolve the feudal relations of production. In the first case, the peasant was expropriated from the land, and the land was cultivated and leased to capitalists. In the second case, the peasant bought himself out and gained full ownership of his land. If the separation of property and ownership persisted, then rich feudal peasants could become capitalist tenants who exploited wage laborers. [22: 574]

In England, the transition to manufacturing capitalism was relatively uncomplicated, as it quickly took over agrarian production through the original accumulation and the capitalist economy already had a secure basis at the end of the 15th century. [26: 845] Without a corresponding level of development of the productive forces, the feudal money rent could not be converted into a capitalist land rent. There also had to be a relative level of development of the world market and trade, the possibility of exploiting rural wage laborers; otherwise, feudal relations were more likely to become entrenched through renewed serfdom and the reintroduction of labor rents, which then served the feudal lord's market production, as in the eastern expansion areas of Germany since the 16th century. But here, too, the level of development of the productive forces prevailed, the qualitative increase in the division of labor and the orientation towards the market. [22: 575]

In the *Islamic Orient*, the feudal mode of production had a number of *special features* compared to Europe. In 1853, Marx and Engels called the role of the state as the supreme landlord and the associated coincidence of rent and tax the "key to the whole Orient".

[MEW 28: 254, 259] The state territory was regarded as the common property of the ruling class, which collected its rent from the peasants with the help of the centralized state apparatus. State lands were mainly concentrated in Egypt, Iraq, Khorasan, Khorezm and Khuzistan, i.e. in areas with large irrigation systems and agriculture on alluvial land. [24: 236] Furthermore, the product rent outweighed all other forms of rent. Marx examined the effect of this phenomenon on the economy and came to the conclusion that this rent "could have a scope which seriously endangers the reproduction of the conditions of labor, of the means of production themselves, makes expansion of production more or less impossible and reduces the immediate producers to the physical minimum of food. [MEW 25: 804] In the long run, [475] it caused a stagnation of Near and Middle Asian feudalism. In the Umayyad caliphate (661-750), there was a slowdown in early feudal development in the conquered lands of Syria, Palestine and Iraq, as the Arabs established a barbarian state that represented a transitional stage from military democracy to pure class rule and was essentially based on tributes and taxes from the subjugated provinces. [5: 171] Slavery as a form of production continued to play a role in agriculture and mining. Numerous free farming communities and nomadic tribal associations also existed.

It was only under the Abbasids (750-1258) that feudal forms of exploitation prevailed, against which the free communal farmers in particular rose up, as in 776-783 in Central Asia (Mawrannahr). The defeat of the powerful revolt of the black slaves in Zinğ Iraq, 869-883, led to the gradual demise of slavery as a form of production. [5: 268] The ruling class did not, as in Europe, sit in the countryside in courts and castles, but in cities, where they consumed the rents allocated to them by the caliph as state and religious leader. This is why the word landlord is missing in the languages of the Orient, which Engels already noticed. [MEW 20: 163 f.] From the ruling class came administrative and tax officials as well as officers for the local (Arab) and foreign (Turkish) troops. The *peasants* suffered particularly from the arbitrariness of the tax officials and tax tenants, who often did not provide them with the bare necessities of life. As the army could no longer be paid at the beginning of the 10th century, the state began to distribute concessions (*iqṭā*) to the soldiers, i.e. plots of land with peasants living on them who had to pay taxes in kind and in money to the owners. As before, there were no manorial estates, so that the labor pension also remained unknown. [34: 1137] In contrast to Europe, there is hardly any evidence of improvements in agricultural production instruments in the Orient, neither new tilling methods nor harrows, wheel plows and windmills. The high fertility of the soil seemed to make technical innovations unnecessary. But it soon became apparent that the irrigation system was also neglected by the farmers, as they had little interest in increasing the harvest because the rate of exploitation had reached a level that deprived them of any interest in production. They only cultivated as much land as they needed to feed their families. This led to a permanent reduction in cultivated land and an unstoppable advance of the steppe. [1: 49 f., 156] The main form of exploitation was rent, which consisted of a division of agricultural produce between peasants and feudal lords, with the latter skimming off the entire surplus product and depriving the producer of any possibility of expanding production from the outset. The *iqṭādars* (feudal landowners) and high state functionaries did not invest the rents in agriculture, as they had no farms of their own (manorial estates), but consumed them with their entourage or used them for usury. Petruševskij sees this as a further peculiarity of oral feudalism and a cause of the stagnation and backwardness of agrarian culture. [24: 286 f.] All male non-Muslims (Christians, Jews) had to pay a poll tax (*ḡiḡya*) in addition to the land tax in money (*dirhem*) from the age of 15, provided they practiced a profession. The cities, which were legally indistinguishable from the countryside as in Europe, which did not have free citizen communities but formed a conglomerate of self-governing corporations of craftsmen and merchants and were subject to a state official, experienced an economic boom under the Abbasids, which was partly due to the influx of gold from the western Sultan. [16: 26 f.] Soviet research provides an insight into the size and growth of Central Asian cities between [476] the 8th and 10th or 12th centuries.

Samarkand had 25,000-30,000 inhabitants at the beginning of the 8th century, in the 10th century already 100,000-110,000, Merv in the 10th century 100,000, Bukhara 40,000-50,000. One may assume that in Central Asia 20-25% of the population lived in cities [4: 261, 265, 266, 268]. To a certain extent, long-distance trade guaranteed the relative economic unity of the caliphate. Craft production specialized mainly in glass, textile and paper production. The first state manufactories (*ṭirāz hāṣṣa*) opened their doors in Syria, Egypt and Iraq. However, these were not early capitalist ventures like those in Florence, Flanders or England, but forced labor by slaves and peasant and artisan state frontiers. A few private *ṭirāz* hired wage laborers, but their number barely exceeded 10 per workshop. [1: 150 ff.] Despite the advanced urbanization and the developed commodity-money relations, the product rent remained dominant in the caliphate. With the invasion of the Turks under the Buṣyid Sultan dynasty (935-1055) and the invasion of the Turkish Seljuks in the 11th century, the feudal system prevailed in exchange for military service. The irrigation systems now fell into rapid disrepair, the merchant and usury capital seeped into the pockets of the new rulers, and state property on land gradually dissolved, especially in Egypt and Syria under the Fatimids (969- 1171) and Mamluks (1250-1517), and in Iran under the Ilkhans (1255-1349), and was transformed into *iqṭā*. The fiefs themselves tended to change from conditional to unrestricted ownership. [27: 45, 142, 172] Above all, usury, which destroys forms of property in pre-capitalist modes of production, continued here for a long time "without producing anything other than economic decay and political corruption" [MEW 25: 610 f.].

Feudalism in the Islamic world is not a unique form of production, despite the peculiarities mentioned above. For one thing, the state monopoly on land was not qualitatively different from the land monopoly of a ruling minority in Europe, where collective ownership was not unknown (church). In contrast to the peasant in the West, who was obliged to pay interest and pay a service, the collapse of tax and rent did not represent a new, but only a more oppressive form of feudal exploitation. In the Orient, communal coercion and usury gave rise to serfdom and bondage. [25: 49] From the end of the 11th century, Eastern feudalism tended to become increasingly similar to European feudalism through the granting of land in exchange for military service *iqṭā*, combined with the crumbling of state land, the hereditary nature of fiefs and the emergence of private ownership of land in the hands of the ruling class. The despotic interventions of the military aristocracy in trade and industry prevented the transformation of commercial and usurious capital into productive capital. Under these circumstances, the dissolution of old ownership and property relations through the accumulation of money led to a standstill in industrial production and the domination of the country over the city. The collapse of many production sites and long-distance trade in Syria, Egypt and Asia Minor in the 16th century was only partly the result of geographical discoveries, but superficially the consequence of the destructive arbitrariness and excessive rent-seeking of the military aristocracy.

The emergence and development of the feudal mode of production among the *Asian nomads* differed from both European and Oriental feudalism. In pre-capitalist times, the geographical conditions of the Central Asian steppes offered few opportunities for agriculture. In contrast, the cattle breeders were able to penetrate and exploit the vast areas with their farming methods. Nomadic cattle breeding enabled a relatively stable reproduction of livelihoods with comparatively little labor. [18: 435] [477] The organizational form of the Asian nomads was the *kören*, a territorial community that united separated extended families, called *āl*. The *kören* formed a protective institution to defend the grazing land against foreigners. [23: 4] The land (the pasture) was considered communal property. "With wandering pastoral tribes," wrote Marx, "the earth appears like the other conditions of nature in elementary unlimitedness ... It is grazed, etc., consumed by the herds, on which the herding tribes again exist. They relate to it as their property, although they never fix this property ... In fact, only the herd is appropriated and reproduced here, not the earth, which, however, is always used temporarily and communally at each place of residence." [MGr 390] The communal property was divided within the *āls*

eroded by private ownership of livestock. On the basis of the *differentiation of ownership of livestock*, relations of exploitation and dependence developed, which led to social stratification. As a rule, however, this did not lead to the formation of sharply defined classes, as the majority of herders retained their own farms and means of production. [18: 459] It was only when the pastoral land was usurped by the clan nobles that *feudal exploitation* of the pastoral warriors began. This took place *via the herds*, in the allocation of a number of animals for care, i.e. through labor rents. In addition, the Mongols introduced a tax system in the 13th century, according to which all herdsmen were registered and taxed separately. The feudal nobility, later the khan, levied a pasture tax, the *kopčur*, and a "support" for the ruler and high officers, the *alba*. The taxes had to be paid in products, later in money. [23: 6 f.] With the unification of all Mongols under the rule of Temujin - Čingiz Khan (1155-1227), all pastures became state land. However, the princes and high-ranking military officers retained private ownership of land. The Grand Khan's army reform according to the decimal system tore apart the old gentile band of the levies. It served not only to increase military strength, but no less to feudalize the empire. The free herdsmen, who were assigned to the thousand and hundred leaders, had to obey them not only in war but also in peace, render services and pay taxes, which their commanders collected for the khan and for themselves. [In this way, nomadic feudalism took on specifically military characteristics among the Mongols, but also among the Turks. The high officers received fiefs, *soyurğal*, which were hereditary and enjoyed administrative and legal immunity. With the formation of the great empire under Čingiz Khan and his successors, the feudal nobility became independent, the *soyurğal* were transformed into de facto allodes, the administrative and military units of the millenary leaders gave way to the *otoks*, which replaced the old state lands and made private ownership of land the dominant factor in the disintegrating empire. The owners of the *otoks*, the *noyon* (lords), commanded the *albatu* (people who had to pay taxes - *albu*) like sovereigns [12: 9]. The transition from pastoralism to semi-nomadism was important for the development of the productive forces. This type of economy, which was based on a seasonal change between agriculture and grazing, promoted the tendency towards a sedentary way of life. The more this change became established, the more the feudal exploitation resembled the oriental version of feudalism, turning the shepherd into a cattle-herding farmer who had to pay his lord the produce rent. In most cases, this transition took place under duress, such as in the 16th century in the Ottoman Empire with the Yürüks, in order to be able to integrate the restless nomadism firmly into the central state. In addition, the nomadic and semi-nomadic form of economy and exploitation persisted to the present day, for example in Asia Minor. [17: 39 ff] **[478]**

Literature:

- 1 *Ashtor, E.*: A Social and Economic History of the Near East in the Middle Ages. London 1976; 2. *Barg, M. A.*: Problemy social'noj istorii v osveštenii sovremennoj zapadnoj medievistiki. Moscow 1973; 3. *Ders.* in: VJ 1960, H. 8, p. 94 ff.; 4. *Belenickij, A. M./Bentovič I. B./Bol'sakov, O. G.*: Srednevekovyi gorod Srednej Azii. Leningrad 1973; 5. *Belyaev, E. A.*: Araby, islam i arabskij chalifat v rannee srednevekovje. Moscow 1965; 6. *Boutruche, R.*: Seigneurie et feodalité. Paris 1970; 7. *Cipolla, C. M.*, in: EHR 1963, vol. 15, p. 413 ff.; 8. *Duby, G.*: L'économie rurale et in vie des campagnes dans l'Occident médiéval (France, Angleterre, Empire - IX -XV^{ee} siècles). Paris 1962; 9. *Ders.*: Guerriers et paysans VII-XII siècle. Paris 1973; 10. *Ebner, H.*, in: Aus Forschung und Kunst. Bd. III, Klagenfurt 1969; 11. *Engelberg, E.*, in: ZfG 1971, vol. 19, p. 1219 ff.; 12. *Gericke, H.*: Stadtluft macht frei. Halle 1968, (Habil.-Schrift); 13. *Le Goff, J.*: Das Hochmittelalter. Frankfurt/M. 1965; 14. *Graus, F.*, in: Me- diaevalia Bohemica 1969. vol. 1, p. 4 ff.; 15. *Heers, J.*: Le travail au moyen âge. Paris 1965; 16. *Hoffmann, G.*: Kommune oder Staatsbürokratie?, in: Forschungen zur mittelalterlichen Geschichte. Vol. 23, Berlin 1975; 17. *Hütteroth, W.-D.*: Bergnomaden und Yaylabauern im mittleren kurdischen Taurus. Marburg 1959; 18. *König, W.*, in: EAZ 1974, vol. 15, p. 454 ff.; 19. *Lamprecht, K.*: Deutsches Wirtschaftsleben im Mittelalter. Vol. 1.1, Leipzig 1886; 20. *Levickij, Ja. A.*, in: VI 1969, H. 9, p. 91 ff.; 21. *Ljublinskaja, A. D.*, in: SV 1975, vol. 38, p. 116 ff.; 22. *Müller-Mertens, E.*, in: EAZ 1972, vol.

- 13, p. 543 ff.; 23. *Natsagdorj, Sh.*: Main characters of feudalism of the nomads (the Mongolian Society as an example). Ulan Bator 1975; 24. *Petruševskij, I. P.*: Zemledelie i agrarnye otnošenija v Irane XIII- XV vekov. Moscow/Leningrad 1960; 25. *Poršnev, B. F.*: Feodalizm i narodnye massy. Moscow 1964; 26 *Schilfert, G.*, in: WZHU-GSR 1964, H. 13, p. 842 ff.; 27 *Semenova, L. A.*: Salach ad-din i Mam-ljuki v Egipte. Moscow 1966; 28. *Stam, S. M.*, in: Srednevekovyi gorod. Vol. 2, Saratov 1974, p. 3 ff; 29 *Uitz, E.*, in: ZfG 1973 (21), p. 400 ff.; 30 *This* in: Deutsche Historiker-Gesellschaft, Wissenschaftliche Mitteilungen, 1969/III, 1970/I, p. 18 ff.; 31 *Vercauteren, F.*, in: Notre Passé Reihe II/3, Brussels 1946; 32 *Vladimirtsov, B.*: Le régime social de Mongols. Le feodalisme nomade. Paris 1948; 33 *Werner, E.*, in: Städtische Volksbewegungen im 14. Jahrhundert. Tagung der Sektion Mediävistik der deutschen Historikergesellschaft. Vol. 1, Berlin 1960; 34. *Ders.*, in: ZfG 1963 (11), p. 1134 ff.; 35. *White Jun., L.*: Die mittelalterliche Technik und der Wandel der Gesellschaft. Munich 1968; 36. *Istorija Italii*. Vol. 1, Moscow 1970; 37. *Political Economy* (Party University at the Central Committee of the CPSU - Chair of Political Economy). Vol. 1, Berlin 1976.

Ernst Werner

2.4.2 Agricultural productive forces

Under feudalism, agriculture was the predominant branch of production, the land was the most important means of production, the village with its fields was the main place of production, and the feudal-dependent peasantry - alongside other producer groups - was a mainstay of productive power development.

In the transition to feudalism and during the entire existence of this socio-economic formation, there was no revolutionary growth of the productive forces of the agrarian sphere, but rather a partly contradictory evolution, which essentially proceeded from the lower to the higher over a period of more than a thousand years and in [479] some regions - above all Europe and North America - helped to prepare the development of the agrarian productive forces appropriate to capitalism. This historical perspective justifies a certain precedence of the European (and the North American derived) standard of feudal agriculture; however, it was not inherent in the character of the agrarian productive forces of European feudalism from the outset,

In other words, there was initially no global superiority over the level of agrarian productive forces in non-European feudalism.

During the early phase of feudalism, the focus of the historical process was on ensuring the continuity of agricultural productive forces. Several regions of the world had already produced a considerable level of agriculture under the conditions of pre-feudal modes of production: first the Near East, which had played a leading role worldwide from the emergence of the country house and domestic animal husbandry to the invention of the iron plowshare, then above all China and ancient Greece and Rome, whose agriculture had reached an almost equally high level during antiquity. Despite the considerable ethnic shifts and the resulting loss of production experience and the direct destruction of productive forces during the prolonged revolutionary transition to feudalism, the impending break in continuity did not occur completely on the European continent. Feudal agriculture preserved essential elements of ancient agriculture. [20: 126]

The initial situation is characterized by the fact that, on the one hand, the developed late Roman agricultural culture had been closely tied to the ancient slave-owning state in terms of its work organization, agricultural theory, processing and trade of agricultural products, but on the other hand, with regard to the agricultural production instruments and technologies used, it had also included developments that had matured on the fringes and outside the empire under late-Gentile production conditions. The highest level in important areas of agricultural technology in European antiquity was embodied not only by certain Greco-Roman, i.e. Mediterranean, traditions of agriculture (which in turn were largely of Near Eastern heritage) such as irrigation, green manuring and special crops, but also by numerous Central European achievements, which are known above all from the oppida of the Latène period and are continued in the provincial Roman finds. These

include such important tools as

such as the bed plow in addition to the hook plow, the frame harrow, the scythe, the bow sickle, the flail (?) the four-wheeled cart, the horse shoe, etc. (the Mediterranean standard, on the other hand, includes the hook plow without the addition of the bed plow, the bush harrow, the hoofed sickle, the threshing sledge, the two-wheeled cart, etc.). The preservation or adoption by the "barbarians" of this standard, which had been tested under the bioclimatic conditions of Central Europe, was naturally more possible during the transition period than if Mediterranean agriculture alone had formed the starting point for all agricultural progress.

Nevertheless, during the transition to feudalism in Europe, there were temporary regression phenomena in the agrarian productive forces. First of all, this concerned the form of transmission of agricultural production experience, which, in contrast to antiquity, reverted to a purely oral status; furthermore, the loss of certain tools and processes that had been more or less geared towards latifundia farming, e.g. the so-called mowing wagon and meadow irrigation; finally, regression in livestock farming, where former approaches to breeding selection were forgotten and the herds partially degenerated. [7: 134 ff.]

[480] In principle and permanently, the previous standard in Europe was not lost. There were changes in the dimensions of tools and domestic animals, but at the same time a broader application of earlier achievements [26: 72]. The peasants, who had been transferred to feudal dependence and were in fact in possession of the main means of agricultural production, preserved the pool of traditional tools and methods on a smaller scale, tailored to farming conditions, or adopted them for the first time. Thus, despite all the ecologically induced differences, there was a leveling of the agricultural production level on the European continent, a relative balance that was initially below the peak level of late antique agriculture in some regions, but in other regions tended to narrow the remnants of archaic agricultural stages. This bioclimatically, socio-economically and ethnically favored balance also marked a significant difference to the Asian continent, where the difference in level from the feudal states with highly developed agriculture to those with hunting and gathering, nomadism, etc. was extremely pronounced and the all-around receptivity of the advanced level was objectively not given for various reasons.

Three-field agriculture is a significant result of the development of productive forces within European feudalism and the bioclimatic zone it occupied. It has been documented in the Frankish Empire north of the Loire and the Alps since the 8th century and subsequently spread across a wide belt between England and Russia; however, it was never the only farming system used in Europe's rural areas, especially in mountainous, steppe and coastal zones. Compared to two-field farming, three-field farming - i.e. the rotation of fertilized fallow, winter cereals and summer cereals on three fields of a field in a three-year cycle - theoretically increased yields by a third; with its balanced ratio of winter and summer sowing, it resulted in a more favourable distribution of work over the agricultural year, and it reduced the risk of crop failure to a limited extent due to the separate crops. [20: 137] This field system, or rather its modernized forms, was associated with a complex of methods and implements that became increasingly typical of the standard of agriculture under feudalism [5] and for the most part remained in place until the intrusion of the elements constitutive of capitalist agriculture. These included around the turn of the millennium, i.e. towards the end of the early feudal era, in the non-Mediterranean regions of Europe: the dominance of rye as the main bread grain and oats as the main fodder grain, the soil-turning bed plow alongside the soil-breaking hook plow, the frame harrow with wooden tines, the Grassense with a long beam, the grain bow sickle with a serrated edge, the flail with a movable handle-flail connection, the four-wheeled farm cart, the horse as an agricultural workhorse alongside the draught ox, etc. a.

There were regional differences; for example, the bed plow was absent in the northeastern forest zone, where the zoche was used instead.

This standard, which also included other elements, brought together traditions and innovations from different parts of Europe. Three-field farming first developed in the Frankish Empire. The range of implements was based on traditions from the largely extinct Celtic ethnos. The reactivation of the bed plow, which was used to turn the soil, work it deeper and ensure a better metabolism for the seed, took place particularly early in parts of the Great Moravian Empire. The harnessing of horses, which from then on supplemented the harnessing of oxen, came to Central Europe with an eastern cultural current. The dominance of rye cultivation in feudal-era crop farming had been anticipated by Slavic soil farmers.

The overall character of the methods and devices mentioned so far, which were tailored to manual use and did not require a division of labor, the constant fluctuations in harvests, the poor performance of farm animals, the imperfect working knowledge of the feudal-dependent peasants, their fertility-magical thinking, etc., certainly do not support the assumption of a medieval "agrarian revolution" [28: 78]. The only rural working machine, the watermill with its developed mechanics (transmission of the rotary motion from the horizontal water wheel shaft to the vertical mill spindle by means of a comb wheel and stock gear) is a remarkable exception. [12] Invented and used sporadically even under ancient production conditions, it slowly and continuously gained acceptance during the early feudal period, whereby the geographical environment in northern Europe with its seasonally more balanced hydrological conditions played a certain role alongside socio-economic factors. Economically and legally, the watermills were normally under feudal lordship. Similarly, other leading processes and branches of agriculture and food production were closely linked to the ruling feudal class, such as horticulture and viticulture in the monasteries or the first beginnings of written farm management on the Frankish royal estates.

In quantitative terms, the feudal peasants ensured the production of additional agricultural produce on their own fields as well as through servitude on the landlord's fields, meadows and vineyards. This surplus product grew strongly, especially from the 12th/13th century onwards [24: 47 f.], after the changed production conditions (cf. 1.2.4.) allowed the peasants to devote themselves to their own economy with greater initiative. The manorial forms of agricultural work organization (villication), which had been pushed back by the anti-feudal peasant class struggle, were increasingly replaced by communal and cooperative elements, which were creatively combined by the peasants with the principle of individual economic management. The peasants' achievements included the development of functional forms of fields and villages adapted to natural and demographic conditions, a system of mutual restriction and consideration in farming ("Flurzwang"), the expansion of the village pastoral system, regulations on the use of common land and other cooperative facilities by the peasantry, and the establishment of the community as an organ of partial peasant self-government. The historically long-lasting synthesis of communal, cooperative and individual elements in the village economy, together with the synthesis of cooperative and manorial features in the production relations, offered relatively favorable opportunities for the development of agrarian productive forces at times.

The full development of European feudalism in the 12th-13th century was dialectically linked to a more rapid development of the productive forces of the non-agricultural sector. On the basis of the surplus product generated by agriculture, crafts, trade and cities flourished, which in turn influenced agricultural production.

Among the agrarian productive forces, the trend towards "massness" and equalization intensified. Expansionary tendencies - e.g. of the German feudal state to the east or the East Slavic Rus' to the north - contributed to this, combined with the feudalization of tribes and peoples such as the Elbe and Baltic Slavs, Balts, Finns and Hungarians. Equally important was the internal expansion of the land in numerous European regions. Peasant settlers drove this forward to an extent never before and - measured quantitatively - never since. During early feudalism, it was predominantly settlement-friendly and settlement-promoting soils that were used for the expansion of the land.

had been cultivated, woodlands, mountainous areas, moors and marshes were now reclaimed on a large scale. In numerous landscapes between the Pyrenees and the Urals, rural clearing work changed the natural vegetation of the contiguous "primeval forest", expanded the arable land, thus increasing harvests and making it possible to feed the constantly growing population. A qualitatively new stage in the development of cultivated land was achieved through the draining of moorland, but above all through the cutting of dykes along the North Sea coast, where the most fertile land was reclaimed from the sea in the form of polders. [Another epochal event in the history of technology was the invention of the trestle windmill in the northern French-Dutch region. Although there were already older windmills in the Near East-Mediterranean region, these could not be turned "into the wind", which was a basic requirement given the constantly changing wind directions in Central and Western Europe.

For the development of agricultural production tools [5] during fully unfolded feudalism, more frequent or modified use and growth of dimensions were more typical than the invention of new tools or the breeding of new domestic animal species. Improved meadow management in Central European mountain and foothill landscapes increasingly made it possible to mow twice a year. An improved scythe blade was developed for this purpose, and the scythe or sifter was also used instead of the sickle for summer cereal mowing to save labor. Winter sowing was now often given three plough furrows instead of two; the performance of the plows increased as the ploughshares were roughly twice the size of the early medieval ploughshares; the range of traditional ploughing implements was further extended by the sweep plow, an implement whose movable mouldboard made it possible to "level" the ground. The horse was increasingly used as a workhorse instead of the oxen; it guaranteed a higher working speed when working in a team and enabled better communication between the farmers. The rural and urban workshops and the waterwheel-driven hammer mills, whose constant production program included ploughshares and scythes, sickle and scythe blades, contributed to the continuous supply of iron tools to the farms. Livestock farming was weaker than the dominant field economy and, with the exception of some bioclimatically favoured mountain and coastal areas, remained qualitatively below the market requirements of the more urbanized landscapes. A certain degree of continental "work stealing" and the corresponding trade activity compensated for this, whereby mainly lean cattle, which were fattened, were brought from the continent's grassland zones to the consumer centers.

The European agriculture of fully unfolded feudalism still did not represent an absolute top standard worldwide. It is doubtful that a larger proportion of agricultural produce was converted into goods here than in other, more densely populated, non-European feudal states. The hydraulic engineering work carried out at the mouth of the Rhine to increase and optimize the agricultural area was, for all its progressiveness, dwarfed by the corresponding achievements of the feudal farmers and the feudal state in medieval China. Meadow irrigation in the Alpine region also lagged behind terraced farming in various Asian regions in terms of technology and work organization. Sporadic additions of marl on European soil did not achieve the [483] effectiveness of planned sludge fertilization, artful fertilizer preparation (compost), the use of human faeces etc. by Chinese agriculture, which was also superior to European agriculture in pig and poultry breeding. [9: 215 ff.] On the other hand, the old centres of irrigated agriculture in Asia proved to be relatively susceptible to natural disasters and wars; moreover, due to their high population density, they also conserved many forms of manual work as opposed to teamwork, so that the higher degree of intensity was brought about by a more horticultural standard of agricultural work; and there were severe restrictions on the agricultural production program due to food restrictions (pigs, cattle, sometimes even milk and dairy products), some of which were religiously conditioned. So even if the more extensive feudal agriculture in Europe did not embody the global standard of excellence per se, its "mediocrity" was comparatively more widely practised and received. The agrarian

The productive forces of European feudalism were tailored to the temperate climate zone, moderately fertile soil, a moderately large number of direct producers and consumers to be fed, and finally also to a religion which, as the ruling ideology, not only did not demand excessive restrictions on the production and consumption program, but even ideologically glorified the value of agricultural activity. [11: 22]

As a result of the progress of agricultural production, European feudalism had entered its commodity-economic phase. At the same time, the new social division of labor deprived agriculture of its solitary position as the sole and leading branch of the economy. Despite all consolidation and maturity, the level of agricultural production now objectively lagged behind that of urban craftsmanship with its highly developed division of labor and greater accumulation of production experience - a lag that contributed to the future urban-rural divide on the European continent.

As a result, the further development of agrarian productive forces in feudal Europe was not undisturbed. The increasingly rapid pace of development of artisanal and commercial production had socio-economic consequences, some of which caused long-lasting damage to agriculture and agricultural producers. During the agricultural crisis of the 14th/15th century, numerous fields and villages in England, France, Germany and other countries, including those in northern and south-eastern Europe, became deserted. [3] This led to a quantitative reduction in agricultural productive forces. The "Black Death", internal feudal feuds, wars such as the Hundred Years' War on French soil and, above all, the Tartar invasion of East Slavic Rus' jeopardized the continuity of agricultural achievements and production experience, but thanks to the work ethic and the interest of the peasantry in agricultural market production, there was no long-lasting decline in the quality of European agriculture.

In the historical run-up to the early bourgeois revolutionary cycle, the agrarian productive forces developed in a contradictory manner [5]: On the one hand, recultivation and subsequently even a new wave of deforestation made up for the backlogs that had occurred and also initiated important progress in the level of agricultural technology; on the other hand, certain aspects of feudal production conditions hindered the possible increase in the productive power of peasant labor.

Some elements of progress in the 15th century, such as the increased cultivation of so-called commercial crops (turnips, woad, etc.), the scythe mowing of winter cereals, the use of the iron-tined harrow and the adoption of the field roller were realized regionally [484] by the farming communities. In contrast, such pioneering innovations as the twisted plow board in Western Europe (which would later become the basic principle of the modern plow in its iron consistency) or the multi-share plow, the seed drill developed in Northern Italy around 1500 or the cross-breeding of more efficient breeding stock from mountain and marshland areas into the underperforming fields of other regions remained in their infancy, as they could hardly be received objectively by the feudal-dependent peasantry and the ruling feudal class - in contrast to its historical ascendancy - had lost its productive interest in agriculture.

The urban bourgeoisie of the Renaissance period made a hesitant appearance as promoters of agricultural productive forces. With the Bolognese Petrus de Crescentiis, it produced the first rediscoverer and continuator of ancient agricultural literature; it also provided some engineering project makers in the agricultural sector, but initially only a few agricultural practitioners who would have played a role as productive role models comparable to the work of medieval monks. The bourgeoisie initially had a more indirect impact on agriculture, with artisanal and later manufactory production increasingly influencing agricultural production programs through increased commodity-money relations and ultimately shaking up feudal production relations.

Epochal changes from the traditionally broad standard adapted to peasant self-sufficiency towards a more specialized agricultural production occurred above all in

England [27: 161 f.], where the expansion of sheep farming as a source of raw materials for the textile industry significantly changed the structure of agricultural production, and in a different way in the Netherlands, which reached the highest level of intensity in European agriculture in the 16th century [1: 104], but less so on the rest of the continent. In Germany, where the level of agricultural production barely increased after the failure of the early bourgeois revolution, the refeudalized production conditions hindered the development of the largely existing advanced productive forces for centuries. This situation was typical for large parts of the continent. Despite a certain degree of economic differentiation, the small peasant farm still possessed the following characteristics: "fragmentation of the land and the other means of production. Like the concentration of the latter, it also excludes cooperation, division of labor within the same production processes, social control and regulation of nature, free development of the social productive forces." [MEW 23: 78]. [MEW 23: 789] A decisive turning point in agriculture was the emergence of manorial rule, the distinctly harsh form of rule and economy of feudal landlordism in Eastern Albania and in large parts of Eastern Europe. Although it was already occasionally documented in the 14th century, it mainly emerged in the 15th century, developed rapidly in the 16th century and became the characteristic economic form after the Thirty Years' War. Caused and encouraged by the demand for grain in Western European countries (England, the Netherlands, Spain, Portugal, Italy), the nobility succeeded in creating peasants, turning their land and landless land into estates, making the once relatively free peasants feudally dependent (second serfdom) and considerably increasing the serfdom payments (see 2.4.5.). However, the estate was only a so-called partial enterprise, as the means of production, livestock and farm equipment as well as cheap labor (forced servants) had to be provided by the peasants. The manor system heralded the capitalist period "in the countryside as a period of large-scale farming on the basis of serfdom. [MEW 19: 327]

[485] However, large-scale production in the capitalist sense did not yet come into being with the feudal "large-scale agricultural enterprise". It undoubtedly formed an important basis for agricultural production, which was carried out on a large area, but still with constantly increasing peasant labor and the usual peasant production instruments. In contrast to the capitalistically operated estates, the feudal estates were therefore not the pillar of large-scale production, but of small-scale agriculture based on farm labor. Large feudal land ownership was only a prerequisite for large-scale production. Moreover, in Brandenburg, a heartland of East Elbe manorial rule, more than half of the land was still in peasant hands around 1800, and the nobility did not yet own a quarter of the land. Only in Mecklenburg and Western Pomerania had the peasantry reached the worst proportions. Until the 18th century, the "feudal manor" was largely determined by the peasant level of production; in many places, its land was still mixed with that of the peasants and was therefore also bound to the land tenure system, even though the feudal estates now exercised the dominant influence. Overall, the East Elbe manorial system had a paralyzing effect on the progress of late feudal agriculture. Through increased feudal exploitation, it imposed the stagnation of peasant farming, condemned the peasants to the lowest level of education, forced them to keep excessive livestock and reduced livestock farming; feudal privileges, such as the right to drive sheep, which also applied to the manorial area, prevented the cultivation of more intensive crops and the cultivation of fallow land. Feudal exploitation largely impaired the conditions for accumulation and reproduction, the basis for the expansion and improvement of productive forces. In Mecklenburg, this was even associated with regressive tendencies, in that the manorial estates reactivated the older hook plow as opposed to the bed plow and enforced the use of oxen, because oxen were more advantageous for peasant use than teams of horses for reasons of fodder alone. [4: 188 ff.] The amount and degree of peasant serfdom payments, which were also supplemented by monetary and product rents, varied in the individual territories, depending on the extent and character of the feudal estates. According to an acceptable average calculation for the 18th century, the feudal services, in terms of labor, draught cattle and farm equipment, undercut the peasant economy.

15% in Northwest, West and South Germany; 15-40% in East and West Prussia, Brandenburg, Silesia, Bohemia and Moravia; over 40% in Pomerania, Mecklenburg, East Holstein and the Lau-sitz. [14: 166 ff.] If more than 40% was claimed, the farmer had to double his production capacity in order to keep his own economy going and to be able to meet his obligations. In extreme cases, as exemplified by the Schleswig-Holstein manors, the farmer had to provide two teams of horses every day, so that he had to maintain three times as many resources. Additional burdens were also created by the "manual days", which were required above all during the tilling and harvest tents, when every worker was needed in the farm fields. While virtually all technical innovations were excluded under these conditions, the manorial exploitation itself had detrimental consequences for the estate economy. If the lord of the manor's plowmen, sowers and farm hands tried to regulate the pace and rhythm of the peasants' work, the peasants generally responded to the lord's demands by providing poor means of production, slow work and careless execution. While these were forms of anti-feudal resistance, these "skills" had a disastrous effect on the work ethic of the peasants and servants; it was [486] a work ethic full of backwardness, caused and shaped by the anachronistic, inhumane late feudal economy. The manorial economy was characterized by low and declining productivity until, in the second half of the 18th century, the consolidated feudal production conditions came into conflict with the productive forces and social needs and more rational methods of exploitation began to bring about a change in agricultural production.

The manorial economy of late feudalism still requires further research. The question is whether, in addition to the "division of labour" between the peasant economy and the estate economy, which was based on an exploitative relationship, a new division of labour and production organization did not emerge within the estate economy despite the "small-scale agricultural production level". Are we not observing a greater division of labour between arable and livestock farming, which entails new production organizations, and a certain specialization of the workforce? Isn't part of the available or required labor force used almost exclusively in arable farming, while another part is devoted almost exclusively to livestock farming, in contrast to the peasant family, which does almost all the work on its farm? Do such phenomena not offer an explanation for the fact that, with increasing exploitation and decreasing productivity and desire to work, an increasing population had to be and was fed?

German agriculture reached its lowest point during the Thirty Years' War. Masses of productive forces were destroyed by the ravages of war, accompanied by famine, epidemics and high prices. The war brought the "peasants, plebeians and ruined citizens down to Irish misery in its worst form" for a long time. [MEW 7: 410] Brandenburg, Mecklenburg, Thuringia, Hesse, Württemberg, the Palatinate and the Upper Rhine Plain were particularly devastated, while the other German regions were relatively spared by the war. The rural population was reduced by an estimated 40%, and it is assumed that around 1 million peasant farms fell victim. [2: 265]

The restoration of agriculture to pre-war levels lasted until around 1685, although the pace varied from territory to territory. In the mid-1660s there was a reasonable level of cultivation in Styria, the Rhineland, Württemberg, Thuringia, Saxony and Anhalt, but without reaching the level that existed at the beginning of the 16th century. At the end of the 17th century, only two-thirds of the agricultural land had been restored to its former extent. In Brandenburg, Pomerania and Mecklenburg, the old situation was not restored until the middle of the 18th century. The reconstruction of agriculture and the recultivation of agricultural land after the war until around 1685 was an "elementary reconstruction" and was mainly carried out by the immediate peasant producers.

Larger settlement movements became more important for reconstruction. Due to increasing exploitation, oppression and religious persecution, Swiss migrated to Baden, Austrians to Franconia, Bohemians to Saxony, Palatines and Swiss to Brandenburg.

Prussia. Many immigrants had greater production experience and skills than the local farmers, so that the receiving areas gained a not inconsiderable productive potential. In contrast, valuable productive forces were lost with the permanent emigration to America, south-eastern Europe and Russia.

Arable farming continued to be dominated by three-field farming. Due to the expansion of cereal cultivation, grazing land became scarcer and the efficiency of livestock farming was considerably reduced. The intensity of field cultivation reflected the ratio of the amount of winter and summer cereals sown. Where strict three-field farming took up the entire arable land, this ratio was 1:1. Just as much winter as summer grain was sown. The more the ratio shifted to the disadvantage of summer grain, the smaller was the area of intensively used inland land, i.e. increasing fertilizer shortages led to an increase in the size of the so-called unfertilized outlying land, which was only cultivated with grain (mostly oats) every 3-12 years. Until around 1750, the proportion of outlying land in many East Elbe provinces amounted to around 20% of the arable land.

From around 1685, a relative upswing in productive forces began. Population growth led to greater activity and increased agricultural production. In Mecklenburg, East Holstein and Dithmarschen, the introduction of paddock or regulated field grass farming began, in which the land was used alternately as arable land and as grass pasture. Clover was mixed with the grass seed to improve the soil structure. In northwest Germany, single-field farming with permanent cereal cultivation dominated, which required efficient livestock breeding and good fertilization. In Brandenburg-Prussia, there was significant melioration work (Havelbruch, Rhinluch). In the first half of the 18th century, there were beginnings in the cultivation of new crops such as clover, alfalfa, sainfoin, potatoes and commercial plants, mostly in gardens or on a small part of the fallow land. The Itztal (Coburg), the Land ob der Enns, the Palatinate, the Würzburg, Erfurt and Magdeburg regions, the lower Rhine area and the island of Fehmarn were known for their clover cultivation. The first potato cultivation trials took place in the Palatinate and in Saxony (Vogtland). Tobacco is cultivated without being able to establish itself permanently. Later, the main areas of cultivation are the Uckermark and the Palatinate. The cultivation of peas, beans and vetches in fallow fields became more common, and cabbage and turnip plants also became more widespread in field gardens or fallow fields. Overall, however, the cultivation of new crops was still very small and had no significant impact on the increase in grain yields. They amounted to 7 dt for rye, 8-9 dt for wheat, 6-6.5 dt for barley and 4 dt for oats per ha. The plowing technique remained unchanged, the plowing depth was about 5-10 cm. Livestock farming was still underdeveloped; herds grew only slowly. The only exception was horse husbandry, which was favored by the nobility and lords of the land. Stud farms were established. Oldenburg and the Marches were known for their good horse breeding. The beginnings of cattle breeding could be seen in northwest Germany, especially in Friesland, where there was also a better level of milk processing. However, the slow development of cattle breeding suffered repeated severe setbacks due to cattle epidemics, which were devastating in the first half of the 18th century, such as the severe rinderpest in 1711 and 1740. The fight against the epidemics was limited to strict restrictions because the pathogens causing the disease were still unknown. It was not until the second half of the 18th century that veterinary medicine received a strong boost, which found expression in the founding of state veterinary schools in Lyon (1761), Alfort (1762), Vienna (1777), Hanover (1778), Dresden (1780), Budapest (1785), Berlin and Munich. (1790) was found.

Since 1750, but especially in the last third of the 18th century, the development of the productive forces in many European countries increased considerably; in some cases it was associated with a revolution in agricultural production that surpassed all previous progress, caused by an increase in population, the expansion of commodity production, the development of manufactories and the rise in agricultural prices. [18: 253 ff.] The increase in agricultural land through melioration was remarkable. In Brandenburg, for example, the areas grew by 230,000 ha (Oder-, Warthe-, Netze-Fienerbruch and others), in Pomerania around 120,000 ha, in Silesia in

different areas by 25-33%. In Bavaria, the Danube moor (1790 = 18,000 ha), in the Ems region extensive raised bogs and lowlands (280,000 ha) were cultivated, as were moors between the Weser and Elbe rivers. This cultivation work resulted in the last significant expansion of agricultural land, which also represented the last major extensive increase in production. It was associated with significant settlement by colonists, who were responsible for the reclamation promoted by the territorial states. In Brandenburg-Prussia, around 290,000 colonists were settled between 1740 and 1797, who were given 600,000-750,000 ha.

With the spread of new crops, arable farming became increasingly intensive. Potatoes, maize, turnips, tobacco, clover, lucerne, sainfoin, turnip rape and rape supplemented the previously one-sided grain cultivation. Of particular importance was the potato, which was cultivated extensively after the severe bad harvests of 1770/71, which were of European proportions. The excellent properties of this fruit quickly encouraged its cultivation. Unfavorable climatic influences, animal pests, etc. affected the potato far less than was the case with the stalk crops, so that in the following period, despite several cereal crop failures, there was no further outbreak of famine. In Brandenburg, for example, potato cultivation rose from 5,200 tons in 1765 to 103,000 tons in 1801, while Saxony (Meissen, Leipzig, Erzgebirge and Vogtland) recorded an increase from 144,570 bushels in 1750 to 1,661,923 bushels in 1800. Potato cultivation was introduced throughout Germany in the second half of the 18th century, except in Bavaria where it only began around 1790 and in Bohemia after the turn of the century. In addition to the cultivation of potatoes, the "social" food of the urban and rural poor, forage crops such as clover, sainfoin and alfalfa played a greater role in arable farming. Clover was usually sown under the summer cereals so that it could develop fully in the fallow field. Sainfoin and alfalfa were mainly cultivated in special gardens or separate fields. Farmers soon realized that clover was a good preceding crop for cereals (winter cereals). Of the new crops, root crops and forage herbs were important. Thanks to their longer roots, both groups utilized the nutrients previously stored in the deeper soil layers for the first time. They improved the chemical, physical and biological soil structure. The necessary maintenance work for root crops improved weed control and often saved a number of plowing operations. The cultivation of the new crops now had a positive effect on subsequent cereal cultivation. Yields increased by around 20-30%. However, a lot of experience had to be gained over time in order to achieve appropriate cultivation. For example, winter rye grew poorly after potatoes, while barley grew well, so that over time there were shifts in cereal cultivation. Oil crops (rape and turnip rape) also had a favorable influence. As strong feeders, they tolerated the manure better than the winter cereals. The cereals that followed found better growing conditions in terms of nutrients and were less prone to lodging, which alleviated a serious problem for feudal harvesting techniques. The new crops were mainly cultivated on fallow land, which represented a real intensification of arable farming, as this increased the overall output of arable farming and created the basis for improved livestock farming, although the new cultivation (improved three-field farming) progressed only slowly overall until the agricultural reforms.

[489] In Holstein, Mecklenburg and Western Pomerania, paddock farming, which was also common in England, Denmark, Sweden, the Westphalian Münsterland and Flanders, prevailed on the estates. In Mecklenburg, the seven-crop system was preferred: fallow land was followed by three years of cereals and three years of grass, with clover undersowing in the pasture fields being characteristic. [25: 491! This paddock system was more effective than the old three-field system. The "alternating pasture", which was plowed and rejuvenated from time to time, improved the forage base and allowed for an increase in livestock farming. The soil improvement was estimated by von Thünen to be about three times higher in the pasture years alone with the seven-field rotation than with the old three-field system. Crop farming also made inroads into Brandenburg and other areas, but here, due to poorer soil conditions and different climatic

The root crop was adopted instead of clover in the early 1980s. In the area around Erfurt, in Brandenburg and Western Pomerania, and occasionally also in western areas, crop rotation farming was already introduced in isolated cases, the most highly developed system of utilization, which is still an important part of agriculture today.

The advances in land use systems, especially paddock and crop rotation farming, required contiguous field ownership. Separations were therefore carried out in Holstein, Mecklenburg, Western Pomerania and East Elbe Prussia, with the estates leading the way. Farmers followed only slightly, but to a greater extent in Schleswig-Holstein.

Progress in livestock farming generally lagged behind that of agriculture at the end of the 18th century. Grazing was the rule, although the yields from meadows and pastures were low due to neglected care. The inadequate fodder base therefore also meant that livestock production was low. Around 1800, the carcass weights of cattle were barely higher than 200 kg. The average milk yield of cows was barely more than 1,000 kg per year. The first signs of progress were seen in the improved feeding of fallow crops, which also made it possible to increase livestock numbers. In areas with favorable forage conditions, year-round stable feeding (mainly of horses and cattle) was introduced. This resulted in higher meat and milk yields and better and higher manure production. Dutch methods were applied to milk processing on larger estates. More and more dairies were established. Domestic livestock breeding was improved by the introduction and crossing of more productive breeds, e.g. from Switzerland, East Frisia and Gdansk. Sheep farming began with the introduction of Spanish Merinos, which ushered in scientific sheep farming, in Saxony in 1765 and in Prussia in the 1980s.

As a rule, only insignificant improvements were made to plows, harrows and wagons. Only on some Prussian estates and progressively operated estates, especially in Brandenburg, but also in northern France, were English farming tools such as swing plows, iron harrows and the like used. Iron-shod wheels, on the other hand, became more widespread.

Science also became involved in the process of agricultural development. Numerous agri-economic societies were founded throughout Germany and in almost all European countries, although they were of varying longevity and farmers had hardly any membership in them. The societies propagated new agricultural methods, promoted experiments, organized surveys, stimulated research, published numerous writings and in some cases ran model farms themselves. [Academies of Sciences in **[490]** Germany and in France (Berlin, Göttingen, Erfurt, Munich, Amiens, Bordeaux, Arras, Rouen, Metz, Besançon and others) announced agricultural prize competitions, which were a direct means of promoting progress in science and agriculture and keeping it on the right track.

Cameralistics, which established itself as a science from 1727 with the establishment of chairs at the universities of Halle and Frankfurt (Oder), later Göttingen and other German universities, but also in Denmark, Italy, Austria and Sweden, initially dealt with agriculture from a fiscal, later also from an economic point of view. Justi, the most important cameralist in the second half of the 18th century, structured his treatise on agriculture according to three principles: The object and system of agriculture, arable farming and crop production as well as livestock farming. He attacked feudal impediments such as compulsory farming, mixed farming and serfdom as obstacles to progress. The cameralists' approach was more agro-economic. They were hardly concerned with questions of the production process, at most with technical problems. This gap was felt by practitioners because they could not draw any inspiration for productive changes in the production process. This is where the new direction of the "experimental economists" began, whose fundamental works appeared in Germany (Eckardt, Leopold, Reichardt) between 1753 and 1759, and the "agronomists" in France (Duhamel, Turbilly, Liancourt, Thouin and others), Italy (Arduino, Trinci, Re, Balsamo), Poland (Kluk, Kniaziewicz,

Switkowski), Russia (Bolotov, Komov, Samborsky, Roznatovsky, Blankennagel, Rastopchin and others) and Switzerland (Gujer, Tschiffeli). They drew on their practical experience with the organization of the agricultural production process and attempted to gain general knowledge from it. They gave advice for experiments with the cultivation of new crops, fertilization and soil cultivation. Their work was of great importance for the development of productive forces, although their scientific knowledge was limited due to time constraints. In Germany, the experimental economists can be regarded as the forerunners of today's agricultural economics disciplines.

With the cameralists and experimental economists, who were literary enemies, the two main directions of the German agricultural sciences, the agronomic-economic and the agronomic-zoological disciplines, were already emerging in the formative phase. Both disciplines have agriculture as their subject, but examine it from different aspects, using different methods, but with the same ultimate goal. Occasionally, attempts are made to process the findings of both main disciplines into a coherent picture. The first attempt of this kind took place with the publication of the textbook "Principles of German Agriculture" by Johann Beckmann in 1769, which was the first systematic presentation of agricultural science in the German language. On this basis, the first independent agricultural science lectures were held at German universities as early as the 18th century. Beckmann was already astutely aware that economics and the natural sciences, as the two older and overarching scientific disciplines, provided valuable impulses for the agricultural sciences. However, he did not yet succeed in taking a unified view of agriculture, and in particular the subjects of agricultural economics were treated too briefly. [2: 286 ff.] By the end of the 18th century, Beckmann had already brought agricultural science to a considerable level, although this remained limited to the realm of the scholarly world and academically educated civil servants. The breakthrough came at the turn of the century with Thaer, who founded classical agricultural science with [491] his work "Rational Agriculture", which, however, already belonged to the capitalist era. [17]

In this context, it should be mentioned that progressive farmers, economists, civil servants and scientists also received a variety of stimuli from England, whose capitalist agricultural economy was influenced by Dutch experience [8: 56 ff.], but which also fulfilled the requirements of the Industrial Revolution through its organization of property relations and its progressive level of development. Various farmers and civil servants visited England and applied the knowledge they had gained to their domestic farms, with the Prussian tenants-general of estates and aristocratic farms leading the way. To a far greater extent, however, they received instruction from English agricultural books, among which Young's exerted a lasting influence and were translated into numerous European languages. The difference with the German cameralistic literature was probably mainly that the English generally showed how things were actually done on the capitalist English farms, while the German publications showed how things should be.

Even if there was considerable progress in the development of the productive forces of agriculture in the second half of the 18th century, which was mainly driven by well-funded and educated bourgeois tenants, bourgeois landowners and open-minded feudal landlords, who, however, only formed a small minority, but which was also supported to no small extent by peasants, whose share was certainly greater in the manorial West than in East Elbe, this progress should not be overestimated. There were still considerable obstacles and resistance. Feudal relations of production still prevailed, embodied in the second serfdom, serfdom, the mixed situation, compulsory farming, levies, privileges, bannmeilenrecht, drift and other justices and other obstructive institutions. The implementation of progress in the development of agricultural productive forces demanded the abolition of feudal production relations and the corresponding agricultural organization and production technology.

The social contradictions affecting agriculture, which intensified in the second half of the 18th century, did not go unnoticed by the ruling class. The declining level of agricultural production led to difficulties in supplying the population with food. The peasants immediately felt the contradiction between the advancing productive forces and the inhibiting feudal production conditions, which prevented a more rational operation. Their dissatisfaction increased. The cameralists and physiocrats, such as Schlettwein, Westfeld and Schubart vom Kleefelde, criticized the outdated agrarian culture and demanded the abolition of the landlord's service, taxes and compulsory farming. Under the pressure of these events, territorial states and feudal lords attempted to eliminate individual grievances in order to prevent larger actions by the peasants. Depending on the prevailing conditions, various changes were carried out, such as the conversion of the feudal service into monetary interest, the leasing of feudal estates to peasants, the granting of property, disestablishments, the abolition of the commons, land consolidation, the use of freer and free peasants, and so on. The changes carried out by no means eliminated the feudal mode of production, which was not the intention of the ruling class. But they did create more favorable conditions for the development of the productive forces. However, the majority of farms remained in an extensive mode of production.

[492] The expansion of the standard of European feudal agriculture to other continents and countries during late feudalism, especially in the 18th century, proved to be significant. For the first time in millennia, a worldwide expansion of the old-world plow farming zone took place again: from Russia to North Asia, from Spain to South and Central America, from the Netherlands to South Africa, etc., and especially from England and other European countries to North America. (In contrast, from the old and partly older centers of developed soil cultivation, e. g. For example, in the feudal states of Asia and North Africa, there has long been no expansion of agricultural productive forces). The European standard proved to be transferable to bioclimatically comparable regions of other continents and usually superior to the ploughless agriculture practised there, which in turn lost its prospects almost everywhere and whose direct producers were in part physically destroyed - a tragic chapter in the destruction of human productive power in the name of "progress".

The fact that the North American continent was increasingly covered by European agriculture was of the greatest importance. This created the geographical and socio-economic conditions for the "American way" of implementing capitalist production relations in agriculture and thus for the optimal development of agricultural productive forces within the socio-economic formation that followed according to law.

Literature:

- 1 *Abel, W.*: Agrarkrisen und Agrarkonjunktur. Hamburg/Berlin (West) 1966; 2. *Ders.*: Geschichte der deutschen Landwirtschaft vom frühen Mittelalter bis zum 19. Jahrhundert. Stuttgart 1967; 3. *Ders.*: Die Wüstungen des ausgehenden Mittelalters. Stuttgart 1976; 4. *Bentzien, U.*: Haken und Pflug. Berlin 1969; 5. *Ders.*: Bauernarbeit im Feudalismus. Berlin 1980; 6. *Beranová, M.*: Zemědělská výroba v 11th/14th století na území Československa. Prague 1975; 7. *Bökönyi, S.*: History of domestic mammals in Central and Eastern Europe. Budapest 1974; 8. *Chambers, J. D./Mingay, G. E.*: The agricultural re- volution 1750-1880. London 1966; 9. *Curwen, E. C./Hatt, G.*: Plough and pasture. New York 1961; 10. *Duby, G.*: L'économie rurale et la vie des campagnes dans l'occident médiéval. Vol. 1-2, Paris 1962; 11. *Epperlein, S.*: Der Bauer im Bild des Mittelalters. Leipzig/Jena/Berlin 1975; 12. *Gleisberg, H.*: Technikgeschichte der Getreidemühle. Munich/Düsseldorf 1956; 13. *Grekov, B. D.*: Die Bauern in der Rus' von den ältesten Zeiten bis zum 17. Jahrhundert, Vol. 1-2, Berlin 1958-59; 14. *Henning, F. W.*: Dienste und Abgaben der Bauern im 18. Jh. Stuttgart 1969; 15. *Hermann, J. (ed.)*: Die Slawen in Deutschland. Berlin 1975; 16. *Jope, E. M.*: in: A history of technology. Vol. 2, Oxford 1959, pp. 81 ff., 537 ff.; 17. *Klemm, V./Meyer, G.*: Albrecht Daniel Thaer. Halle 1968; 18. *Mottek, H.*: Wirtschaftsgeschichte Deutschlands. Berlin 1968; 19. *Müller, H. H.*: Akademie und Wirtschaft

im

18th century. Berlin 1975; 20. *Parain, G.*, in: The Cambridge economic history of Europe. Vol. 1,

Cambridge 1966, p. 125 ff.; 21 *Pirenne, H.*: Sozial- und Wirtschaftsgeschichte Europas im Mittelalter. Munich 1974; 22. *Postan, M. M.*: Essays on medieval agriculture and general problems of the medieval economy. Cambridge 1973; 23. *Ševelenko, A. Ja.*, in: VI 1975, H. 8, p. 78 ff.; 24. *Schmitt, H. J.*: Faktoren der Preisbildung für Getreide und Wein in der Zeit von 800 bis 1350. Stuttgart 1968; 25 *Skazkin, S. D.*: Der Bauer in Westeuropa während der Epoche des Feudalismus. Berlin 1976; 26. *Slicher van Bath, B. H.*: The agrarian history of Western Europe A. D. 500-1850. London 1963; 27. *Thirsk, J.*: The agrarian history of England and Wales (1500-1640). London 1967; 28. *White Jr, L.*: Medieval techno-[493]logy and social change. Oxford 1964 (Die mittelalterliche Technik und der Wandel der Gesellschaft. Munich 1968).

Ulrich Bentzien/Hans-Heinrich Müller

2.4.3 Mining and metallurgy

Mining under feudalism primarily meant ore mining. The focus was on the extraction of precious metals, primarily silver and non-ferrous metals such as copper, tin and lead.

Although iron mining was carried out throughout the feudal period and was extremely widespread in Europe, it was primarily carried out in open-cast mining by extracting swamp and turf iron ore as well as other ores that could be extracted without the technical, cooperative and financial expense of deep mining. The ownership structures here - in contrast to those in precious and non-ferrous metal mining - were still predominantly feudal in character for a long time; production was organized according to the principles of simple commodity production. Iron was mainly used in the form of wrought iron, steel and later cast iron for the production of small iron goods, tools, weapons, furnace plates, wire, and later also tinplate in alloys with tin. The real breakthrough in iron mining only came towards the end of feudalism and especially in connection with the industrial revolution.

[9] [26] [36] Precious and non-ferrous metals were of greater importance during feudalism, with silver clearly leading the way among the precious metals. Gold mining played no particular role in Europe during feudalism. Gold was predominantly extracted from river sands by washing processes (gold placers); deep mining for gold from mines lagged behind this and was only worth mentioning in Silesia and Transylvania, and occasionally also in the Fichtelgebirge (Goldkronach). [20] Gold and silver were the most important means of exchange, i.e. coinage metals, and served as ornamental metals for representation and the accumulation of treasure.

Copper in its pure form or in its various alloys (bronze, brass) was still the most common material for the most diverse metal objects, for vessels of all kinds up to bells, guns, etc. and was processed by a highly differentiated and specialized craft; it was indispensable for the building trade (roofs) and for shipbuilding (hull cladding, fittings). In addition, copper mining was stimulated by the fact that copper ores were generally found in combination with silver ores. It has been calculated, for example, that silver was the main product in Mansfeld copper slate mining, as the silver extracted from Mansfeld black copper accounted for around 60% of the total revenue. [30] Tin was necessary for various alloys, especially for bronze casting and for the manufacture of tableware and other household items. Lead was indispensable for the smelting industry as an admixture for the smelting process of silver and copper ores (known as "silver rubbing") and in particular for the so-called Saiger process, in which silver and copper were separated by adding lead. The supply of lead from Goslar, England or Poland was therefore vital, for example for the silver smelters in the Ore Mountains and for the Thuringian saiger smelting industry.

Before the discovery [494] and exploitation of the American deposits, i.e. before the middle of the 16th century, the most important silver and copper mining districts were in Central Europe, in Central Europe, namely in the Saxon and Bohemian Erzgebirge (Freiberg, Obererzgebirge), in the Harz Mountains (Goslar, Oberharz), in Mansfeld, in Tyrol (especially Schwaz) and other Alpine regions, in Bohemia (Iglau, Kuttenberg), Slovakia (Schemnitz, Neusohl, etc.); in addition, significant mining was carried out at times in the Black Forest. Outside of Central Europe, Scandinavian copper mining, especially Swedish copper mining, was of particular importance for the European market. [37]

In the silver and copper mining industry in Central Europe, on which the following remarks will concentrate, two major phases can be distinguished in the development of productive forces, mining technology, ownership and production relations during the feudal period, the boundary of which lay in the second half of the 15th century.

The first major phase of development was characterized by a period of prosperity from the end of the 12th/beginning of the 13th century until around the middle of the 14th century, which was followed by a period of stagnation and decline. The second phase began with a renewed period of prosperity in the second half of the 15th century, which lasted until around the middle of the 16th century and was then also replaced by a period of crisis in Central European silver and copper mining. These ups and downs were closely linked to the general economic, social and political development of Europe.

Mining was also carried out in the early and high Middle Ages, as evidenced by scattered reports from various areas (in particular from Goslar - from 968 - 'your Black Forest and the Alpine regions) as well as indirect evidence such as mints. However, the general upswing in silver mining began at the end of the 12th/beginning of the 13th century and was linked to the expansion of the urban economy, the intensification of commodity-money relations, the inclusion of rural settlements in market transactions and the beginning transition to monetary rents: all in all with the resulting sharp increase in the demand for coin metal. The discovery of silver ores on the Christiansdorfer Flur (Erzgebirge) in 1168, which led to the establishment of Freiberg, which from then on developed into one of the main suppliers of silver in Europe until the beginning of the 14th century, was of major importance - alongside those of Goslar [2] [3] [22]. [28] [17: 435] Towards or around the middle of the 13th century, Iglau and above all Kuttenberg were added in Bohemia.

Two legal principles were of fundamental importance for the organization of ownership and production relationships in precious metal mining: the Bergregal and the Bergbauffreiheit. [15: 48 ff.] Under feudal conditions, all mining, unless it was carried out by the landowner himself [19], had to cause damage to feudal land ownership through prospecting, the construction of pits, logging, road building, etc.. For this reason, the respective holder of state power, the king or the sovereigns, had declared and legally established freedom of mining at an early stage; this allowed the miner to prospect and dig freely, i.e. wherever ore was suspected, irrespective of the land ownership conditions prevailing there. Where a new mine was opened up, the mining district was freed from landlord-feudal dependencies and placed under the control of the crown or the sovereign. The basis for this was the so-called Bergregal, the king's or sovereign's claim to ownership of all precious metal ores in his country. The enforcement of this regal against the feudal landowners was a question of power, which during the Middle Ages was generally decided in favour of the regal lord everywhere and fixed in the mining rights; however, the landlords - differently in the [495] individual mining rights - generally had to be granted compensation. For his part, the regal lord demanded from the miners the recognition of his power and authority over mining as well as the so-called tithe and a number of other levies based on other regalia, which siphoned off a considerable part of the silver production. The regal system therefore meant that mining remained subject to considerable feudal restrictions and interventions, although it should not be overlooked that regal mining represented a significant advance over the mining of ores not subject to the regal (e.g. iron), which was bound to the feudal lords, and enabled the development of capitalist production conditions relatively early on.

Even in the first heyday of silver mining, it developed according to the principles of Bergregal and Bergbauffreiheit, as evidenced in particular by the mining rights. [6] [7] In accordance with the low level of productive forces, the production conditions and the organization of work corresponded to the principles of simple commodity production. The generally free miner worked with his own simple production tools such as hammer and iron, with his own labor and at his own expense, i.e. as a so-called "Eigenlehner". Surface ores were the main source of mining

in open-cast mining. However, as early as the 13th century, ore veins had to be followed into the depths, and at the same time the problem of water management arose, which necessitated both new technical solutions (new means of extraction, harnessing water power, the beginning of mine surveying) and the transition to adit mining. This inevitably involved a cooperative association [19] [24] with regard to the ownership rights to the mine, cooperation with regard to the organization of work and higher financial expenditure for the construction and operation of mining equipment. Cooperatives of self-employed trades (trade unions) were formed, which, after acquiring a mining license, divided their mining field among themselves (according to mining law in thirty-second parts), bore the production costs according to their shares (additional payment), operated the work jointly with their own work equipment and divided the profits (minus the shelf taxes) proportionally. As early as the 13th century, there were also tradesmen, i.e. owners of mountain parts who did not work themselves (burghers, ministerials, members of the nobility or clergy) but employed paid workers. An intermediate position between the self-working trades and the wage laborers was occupied by "Lehenhauer", who took a part of the mine field in fief from the trades, who continued to pay the additional costs and also provided the means of work, but did not give the Lehenhauer a wage, but a share of the mined ore. On the whole, however, wage labor was not dominant during the first heyday of mining; the characteristic features of the mining industry were still the peasant and the cooperative trade union, i.e. conditions of simple commodity production that were intrinsic to the feudal mode of production and did not yet have a corrosive effect on the feudal system, or at best only in the early stages.

Nevertheless, in the long term, the conditions of simple commodity production were the cause of the crisis in mining that gripped all the important mining districts around the middle of the 14th century. [24: 45 ff.] Deep mining could only go on as long as the water allowed it. However, the tunnels and technical facilities required for the water management (Künste) required high costs, which the owner-occupiers or trade cooperatives could not afford. The sources from the second half of the 14th century and the first half of the 15th century all cite a lack of capital on the part of the miners and their overreaching by the ore traders as well as damage caused by the ongoing deterioration of the coinage as the causes of the crisis. The increasing economic [496] and technical demands and the overall need to further develop the productive forces collided with the prevailing, systemic production conditions of simple commodity production. The crisis in ore mining was thus ultimately rooted in the feudal system, and it corresponded with other crisis phenomena of the time.

Overcoming the crisis required a strong further development of the productive forces, in particular the means of production and equipment suitable for civil engineering, an increase in the production experience and technical knowledge of the most important productive force, man, a new organization of production and cooperation based on the division of labour; it required a high, mostly risky use of capital and the consistent use of wage labour.

The social conditions for this had matured in the second half of the 15th century. The growth of capital accumulation through trade; the strong expansion of the market and the development of the internal market; the change in the structure of goods with the transition to mass trade and, above all, the greatly increased demand for metals and metal products were particularly significant; the sharp rise in demand for coinage metal in the economy itself, but also in connection with the development of the state (mercenary system, civil service); the progression of social differentiation in the countryside and in the city, the population growth that began again and the release of labor associated with all this. All in all, it was the beginning of the process of the original accumulation of capital. [MEW 23: 745 f.]

Accumulated commercial capital sought new spheres for the generation of profit in addition to its traditional investment and activity possibilities. From its knowledge of the demand situation on the markets, it sought to free itself from dependence on the supply of goods from small commodity producers by penetrating into production itself, breaking down the barriers of simple commodity production.

The new system of production was a major breakthrough, economically subjugating producers through the introduction of publishing relationships, even to the point of their complete expropriation of the means of production.

Mining and metallurgy became the preferred field for capital investment. This marked the decisive turning point from the crisis to a new period of prosperity in mining and metallurgy. The new upswing began almost simultaneously in the various mining districts, around 1470, and was associated with fundamental changes in production conditions.

Parallel to the great upswing in mining, the metallurgical industry developed, whose locations were generally linked to the presence of large forests. This was because the smelters needed large quantities of charcoal - even more than the mining industry with its need for mine and construction timber - so that close interrelationships developed between the mining and forestry industries. [33] One of the most important smelting centers was the Thuringian Forest, where the most important Saiger smelters had been built since the 1600s. [30] In these smelters, silver was smelted out of black copper with the help of lead additives using the Saiger process, which is said to have been known for a long time but was only now becoming widespread and fully utilized. Thuringian Saiger smelters such as those in Arnstadt, Eisfeld, Georgenthal, Gräfenenthal, Hohenkirchen, Hüttensteinach, Ludwigsstadt, Schleusingen, Schwarza and later Leutenberg or the Neubrunn brass smelter processed not only black copper from the Mansfeld mining district, but even copper transported from the Lower Hungarian/Slovakian mining towns. The Saiger smelters in Ge-[497]orgenthal and Hohenkirchen smelted almost exclusively Hungarian/Slovak copper from the Fugger-Thurzo company. One such smelter consisted of a whole complex of facilities. The Leutenberg smelter had 8 smelting furnaces, 10 boiling furnaces, 3 cooking hearths, 3 driving hearths and 2 drying furnaces. Between ore extraction, mining and smelting was the process of ore processing, which also required a number of technical procedures and facilities such as ore washing, punching plants, etc.

The availability of the necessary capital also stimulated new technical inventions and constructions to solve the problems of underground mining. While the tools used to extract the ore remained essentially the same throughout the feudal period, new means of extraction, such as the Heinzen and Bulgenkünste and the Göpel, were constantly being designed, tested and used from the end of the 15th century onwards, as described in a unique way by Agricola in particular. [1] With regard to the utilization of water power, the invention of the reversing wheel, which allowed the direction of rotation to be reversed, was the most important innovation. Progress was also made in the art of mine cutting and in the processing (invention of the wet punching machine) and smelting of the ore, both through the development and improvement of the working equipment and in process engineering. The fact that this was only possible by investing large sums of money is shown by contemporary reports, according to which the construction of mines often cost several thousand guilders, not counting the high costs of mining and water management itself, before ore could be extracted at all. In the metallurgical industry, for example, the Leutenberg smelter required construction costs of over 10,000 guilders.

The capital required for mining was invested in the form of the Kuxkauf. As it was generally not yet possible to predict when a mine was opened whether and how much ore would be mined and whether and how much profit could be expected, the capital was usually spread across as many mines and mining districts as possible. Profits in one mine or mining district could often compensate for losses in many others and also generate high profits. In contrast to earlier times, the ownership rights to the colliery as the respective operating unit were divided into 128 Kuxe (i.e. each thirty-second was divided again into 4 parts); in addition, there was sometimes a 129th Kux as a free Kux for the church. Anyone who bought cuxes from a colliery was obliged to pay the corresponding share of their production costs (Zubüße), in return for which he was entitled to the corresponding share of the profit (yield after deduction of the regal levies). As the value of the Kuxe rose or fell according to the respective yield of the mine, Kuxe very quickly became a popular object of speculation.

The owners of the Kuxe were still called Gewerken; the Gewerken of a colliery, whose composition could change constantly as a result of the lively Kux trade, formed a

Trade union. [Since these tradesmen only contributed capital without becoming active in any other way, their presence at the mining site was no longer necessary. The tradesmen of the second heyday of mining were generally merchants or other wealthy citizens in more or less distant towns, as well as the sovereigns themselves, nobles, sovereign officials, etc., who had their interests in the respective mining location represented by so-called publishers. The merchants usually maintained a close interweaving of commercial and entrepreneurial activities in various fields. These merchant-entrepreneurs, often related and related by marriage, formed the beginnings of the emerging commercial and manufacturing bourgeoisie.

There was no such strong fragmentation of shares in the centers of North Tyrolean mining. Due to more favorable deposit conditions with less risk for the capital investment, the mines were only divided into ninths; ownership here was considerably more concentrated overall than in the area of Saxon mining law. Production itself, however, was carried out by free wage laborers who no longer owned any means of production and sold their labor. For them, wage labor was generally no longer a secondary occupation (e.g. seasonally alongside their own small farm), but their sole or main occupation. The predominant form of wage was the temporary wage. In the Ore Mountains at the end of the 15th century, for example, it amounted to 9 or 10 groschen per week for a miner. According to the miners themselves, this wage was extremely low, as they had to pay the landlords 8 groschen per week for board and lodging, leaving hardly anything left over for clothing and the upkeep of the family. [15: 209 ff.] In addition, there was the so-called *Ge-dinge*, a kind of piecework in which the wage for a certain amount of work was fixed in advance. In Tyrol, fiefdoms were still relatively important due to the favorable deposit conditions. [11] The work was carried out by specialized workers such as hewers, miners, mine carpenters, water servants, cleaners, etc. in a division of labour. In silver mining, up to 30 specialized occupations can be documented, and in copper mining almost 50. [32: 103] The number of workers depended on the respective yield. In places and times of high yields, they rose sharply; when yields declined, they fell almost as quickly. In the centers of silver mining in the Erzgebirge, such as Schneeberg, Annaberg and Joachimsthal, there were, according to conservative calculations, 3,000-4,000 miners in each of the heyday periods. [15: 110 ff.] [16: 94] Contemporary censuses for the Schwazer Falkenstein in Tyrol revealed the number of 7,400 workers in 1490, 4,576 workers in 1526, and 7,460 workers in over 20 different specializations in 1,554. [8: 415, 438] [11: 225 ff.] In total, around 10,000-15,000 workers can be assumed for Schwaz at that time. In the Lower Hungarian/Slovakian Schemnitz, 2,000-3,000 workers are said to have been employed, in Neusohl only around 1,000. [21: 317] The changing yield in the various towns and mining districts also resulted in regional, national and even continent-wide migrations of miners. [14: 87 ff] [12]

The existence of non-collaborating, "capital-providing" trades as the owners of the means of production on the one hand and free wage laborers who worked together in a division of labor, i.e. manufactory-like cooperation, on the other, fundamentally denotes a capitalist production relationship. The specific form of the organization of property in the form of the capitalist trade union was a preliminary form of the joint stock company. "The trades of the ore mines, originally cooperative workers", transformed themselves "into joint-stock companies for the exploitation of the company by means of wage labor." [MEW 25: 914] In addition, there were still remnants of wage laborers (mineworkers) and other workers, but these were generally limited to prospecting and digging work.

Ownership of the arts and smelters was generally more concentrated. As the arts were usually suitable for relocation and could be used wherever the owner expected to make a profit, the risk was lower here, as with the smelters, than with direct mining interests. Here, ownership was often in the hands of individual entrepreneurs, companies or, for example, Upper German firms.

Upper German companies dominated the Thuringian Saiger smelters. Most of the smelters were founded or taken over by Nuremberg merchants. Two of the most important, Georgenthal and Hohenkirchen, came into the possession of the Augsburg Fuggers or were built by them. Jakob Weiser played a key role in the construction of the Leutenberger Hütte in 1524 with 70,000 guilders in capital. The Nuremberg Fürers, who played an important role in the Thuringian Saiger trading companies, competed with Welser's company. In 1531, Christoph Fürer succeeded in forming a syndicate of the smelters in Arnstadt, Gräfenenthal, Steinach and Schwarza against the opposition of Welser. And in 1534, after Welser left the Leutenberg company, a syndicate of all Thuringian Saiger trading companies was formed. By setting up central sales outlets, joint pricing, market allocation and sales agreements, the syndicate succeeded in doubling its profits at the expense of the copper-processing industries, which had to submit to the syndicate's conditions when procuring raw materials. [30]

The Saiger trading companies and the Tyrolean metallurgical lords also sought to gain control over mining in addition to owning the smelters. In Mansfeld and Tyrol, this was largely achieved through the expansion of the local smelters and tradesmen. [11: 225 ff.] [18: vol. 1, 49 ff.] The Fuggers almost completely took control of the Lower Hungarian/Slovakian copper district. There, the Krakow entrepreneur Johann Thurzo had already begun to manage the collapsed mines in 1475, thereby overcoming the mining crisis. He gradually acquired the mines of Neusohl (Banská Bystrica). When the Fuggers expressed their interest in mining there towards the end of the 15th century, Thurzo joined forces with them in 1495 to form a company that created a unified, organizationally highly developed capitalist enterprise from the various mines. In addition to the joint exploitation of the mines, the company established smelting works and hammer mills, including those at Georgenthal and Hohenkirchen in Thuringia, and built up a sales organization covering large parts of Europe with numerous factories and branches. [29]

Exact production figures have only been handed down in part. In the decade from 1521 to 1530, for example, they amounted to a total of 440,885 marks of silver at the Schwazer Falkenstein in Tyrol; 126,300 marks were produced in the same decade at the Ringenwechsel, which also belonged to the Schwazer Revier, and

117,100 marks of silver, not counting the smaller parts of the Schwaz mining district. [8: Vol. 52, 432; Vol. 53, 45, 74] In comparison, the Jáchymov district on the Bohemian side yielded side of the Erzgebirge from 1521 to 1530 totalled 418,650 marks [30: 286]; the Eisleben Saiger smelting industry of the Mansfeld mining district approx. 290,000 marks [30: 247] and the centers of the Saxon Erzgebirge (excluding Freiberg) approx. 160,000 marks [15: 269]. In the two following decades from 1531 to 1550, the annual average of silver production in the three mining centers mentioned in Schwaz together amounted to around 54,000 marks [8: vol. 52, 432; vol. 53, 45, 79], in the Saxon Ore Mountains [15: 15].

birge (without Freiberg) around 41,000 marks [15: 269].

The assessment of the production conditions in mining and metallurgy as capitalist needs to be qualified. Silver mining was still subject to the Bergregal, i.e. the feudal ruler's monopoly ownership of the precious mineral resources, the silver purchase, i.e. a monopoly on the purchase of all silver, and the Münzregal, the sovereign's sole right to mint coins. The tradesmen had to submit to these claims if they wanted to obtain a mining license. In order to realize their claims, the regal lords transferred the entire management of silver mining and smelting to their own official apparatus, which was based on the directorate principle. It was codified most comprehensively in the Annaberg Mining Ordinance of 1509 [6: 163 ff.], which became the basis of mining law in many European mining districts. Directly subordinate to the sovereigns and controlled by sovereign councils, the captain stood at the head of this apparatus as the supreme administrator of the respective mining district. Subordinate to him was the Bergmeister, who issued the mining licenses and acted as the technical manager of the entire production of a mining district. The so-called Zehntner acted as the highest financial official, who collected and accounted for all the silver, collected the sovereign's shelf taxes and paid the rest to the shift foremen to finance further production and what was left over as yield.

(profit) to the trades. Other subordinate officials with special responsibilities were the jurors, mine clerks, counter clerks, distributors, etc. Only at the level of the shift foremen, the production managers of the individual mines, did the trades have a say. Overall, the management and control of the production process, ore smelting and financial administration was entirely in the hands of the sovereign civil service. The trades, as providers of capital and owners of the most important means of production, were largely excluded from the management of the production process; they bought the mining royalties, paid their bonuses and - if they were lucky - received their spoils. Everything else was essentially a matter for the mining officials. [15: 48 ff.]

In this way, the sovereigns reaped high profits from silver mining. In Saxony, they appropriated 20-25% of the total silver production on the basis of their regalia alone. Even though they protected mining against the interests and access of the feudal landowners and promoted it through a range of other measures, they siphoned off a large proportion of the profits parasitically. This inevitably had to paralyze the trades' desire to invest, especially in times of stagnation. In this role, which inhibited capitalist progress, lay - along with other factors - the seeds of the subsequent decline, especially after the long-term effects of the defeat of the early bourgeois revolution had strengthened the feudal forces in the economy and society. The income from silver mining was an important economic basis for the sovereign's power, independent of the estates. From the 70s of the 15th century onwards, they initially accounted for a quarter of the state's total income in Saxony, rising to around two thirds in the 30s of the 16th century. [15: 77 ff.]

Developments in Tyrol were different. Although the legal foundations were essentially the same [35], some large companies, in particular the Fuggers, succeeded in acquiring regal functions for themselves. After the Meutingers and Paumgartners had already attempted and partially succeeded in doing the same, the Fuggers continuously granted loans to the ever money-hungry Archduke Sigmund from 1487 and later to his successors, in return for which they had their regal rights pledged to them. In this way, the Fuggers achieved a dominant position over the Tyrolean mining industry as early as 1491 by assuming the ultimately parasitic role of regal lord and extracting high profits from mining at the expense of both the tradesmen and the workers. These were essentially based on the fact that they paid the tradesmen - like the feudal sovereigns elsewhere - a lower price than the market price for the silver they were obliged to deliver. Based on their monopoly position in the Lower Hungarian/Slovakian mining industry and by exploiting regal rights, they succeeded in eliminating almost all their competitors in Tyrol after 1500. This made the Fuggers masters of the Tyrolean mining business. [4] [5] [25: 162 ff.]

The specific situation in mining meant that the interests of the most diverse social forces were intertwined, influenced each other or clashed: the interests of the sovereigns and their civil servants, the feudal landowners and, in part, the peasants, the trades, the workers, to name just the most important. This resulted in extraordinarily complicated social relationships, contradictions and conflicts. Roughly outlined, [501] the social situation in the area of silver mining was determined by the following contradictions [15: 182 ff:]

- The decisive contrast was that between capitalist production and feudal power relations, which found its most obvious expression in the system of management. This contrast gave rise to a struggle of the trades against feudal skimming and preferential treatment and for an increase in their own rights. This struggle between the trades and the feudal powers for the highest possible share of the profits determined the class struggle in mining for a long time, albeit influenced and modified by the struggle against the claims of other sections of the ruling feudal class and by the struggle of the miners, and in the Lower Hungarian/Slovakian mining districts also by national antagonisms. Until the final shaping of the management system, which took place in Saxony with the Annaberg Mining Ordinance of 1509 and was further mediated by it, the struggle of the trades was fundamentally against the feudal regal system

and aimed at greater freedom for capitalist entrepreneurship. Later, it was less fundamental and was only directed against individual symptoms or excesses.

– From the very beginning, there was fierce competition within the trades for the highest possible share of the profits. These took on a special character where they involved conflicts between the two factions of the emerging trading and manufacturing bourgeoisie, the monopolistic and the anti-monopolistic. [13] Thus the policy of monopolistic control of the mining business pursued by the Fuggers and other large corporations was bound to severely impair the widespread growth of capitalist entrepreneurship. For this reason, the Tyrolean tradesmen, for example, who had previously mainly fought against the princely regal claims, increasingly turned against the Fuggers after 1500, but they were unable to oppose their cartel and syndicate policy in the long term. Whereas in 1472 there were still 42 large-scale trades and metallurgical lords on the Schwazer Falkenstein, in 1555 there were only 4, and only foreign corporations. [4] [5] These internal disputes among the trades also hampered their anti-feudal struggle, especially as the sovereigns and their civil servants acted as arbitrators and legal spokesmen in these disputes.

– The feudal powers fought among themselves in fierce and long-lasting disputes over the mining regal. In Saxony, for example, there were battles between the sovereigns and parts of the dynastic nobility over the right to have a say in mining legislation and mining administration and, above all, over regal revenues.

– There were similar disputes with feudal landlords. Many of them used all possible means to defend themselves against the enforcement of the mining rule on their land. The trades and miners were often also affected by these disputes or drawn into them, for example when landowners violently expelled miners from their land against the principle of mining freedom. Farmers also frequently complained about damage to their property.

– This coordinate system of intertwining and mutually influencing conflicts and class struggles also includes the early onset of the miners' movement, which has been studied in detail by Marxist authors for the Saxon [15] and Bohemian [16] Ore Mountains, for Mansfeld [18] and Slovakia [21]; and there is also news for other areas [11: [502] 225 ff. [14]. It resulted both from the main contradiction between capitalist production and feudal power relations and from the incipient capitalist exploitation. Parallel to the emergence of the miners as a special social class - i.e. as early as the second half of the 15th century, in Freiberg even as early as the middle of the 15th century - expressions of their social struggle can be identified, whereby forms of struggle were developed that were specifically proletarian to some extent. In addition to various smaller forms of resistance, there were strikes in all districts, the unity and solidarity of which impressed contemporaries, culminating in major uprisings in the years of the early bourgeois revolution (e.g. Joachimsthal 1525, Schwaz 1525, Slovakia 1525/26, partly in the Saxon Ore Mountains 1523-1525). The aims of the struggle were usually a whole bundle of economic and social improvements such as wage increases, payment of wages in good coin, shorter shifts, the establishment of separate brotherhood houses to care for sick and old miners, and the expansion of miners' self-government. The struggles were always directed against the mining authorities, whom the workers saw as their real oppressors. This was due to the fact that the sovereigns were generally quite adept at appearing as protectors of the miners, while the capitalist trades were mostly based outside the large mining districts and remained anonymous to the workers. The double function of the mining officials as the embodiment of the feudal system of management and at the same time as managers of a capitalist production process meant that the miners' struggle against them contained elements of the struggle against capitalist exploitation as well as anti-feudal elements that were also in the interests of the capitalist trades. At times there was already a direct confrontation between miners and capitalist trades.

The complexity of the disputes and class struggles in the mining industry resulted from the immature and contradictory social situation at the beginning of the transitional period from feudalism to capitalism. The results varied, but overall the feudal powers prevailed, consolidating their regal rule and expanding the directorate system in connection with the various disputes. Especially after the defeat of the early bourgeois revolution, news of class struggles in the mining industry also diminished.

Mining, metallurgy and the mining business based on them had an importance for the economic and social development of Central Europe and especially Germany in the late 15th and first half of the 16th century that can hardly be overestimated. They were the most important basis for the original accumulation of capital and contributed significantly to the spread of capitalist conditions in other areas of non-agricultural production, trade and banking. The mining business was an important part of international trade and money transactions, i.e. the emerging world market. This economic and social importance of mining and metallurgy was already recognized by contemporaries. In an edict dated May 13, 1525 [27: 375 ff.], Emperor Charles V described mining as the greatest gift and resource in the German lands, not only because of the great treasures of gold, silver, copper and other metals, but also because several hundred thousand people were directly or indirectly supported by mining and metallurgical work. And last but not least, the princes and lords made more profit from mining taxes than from any other trade or industry.

Engels rightly emphasized that "the production of gold and silver in Germany (and Hungary, whose precious metal was conveyed [503] to the entire West via Germany) was the final driving force that placed Germany economically at the forefront of Europe in 1470-1530 and thus made it the center of the first bourgeois revolution, in the religious disguise of the so-called Reformation. The *last* moment in the sense that it led to the relatively high development of guild crafts and intermediate trade and thus gave Germany the edge over Italy, France and England." [MEW 37: 274] The long-term effects of the defeat of the masses in this "first bourgeois revolution", the strengthening of feudal forces in the economy and society and the parasitic fleecing of the bourgeois economy, the shift in world trade routes and the influx of American silver resulted in a decline in Central European silver and copper mining after the middle of the 16th century, while Swedish copper production and exports continued to grow into the 17th century. [37]

Literature:

- 1 *Agricola, G.*: De re metallica libri XII, in: Agricola-Gedenkausgabe. Bd. VIII, Berlin 1974; 2. *Bornhardt, W.*: Geschichte des Rammelsberger Bergbaus von seiner Aufnahme bis zur Neuzeit, in: Archiv für Lagerstättenforschung 1931, H. 52; 3. *Ders.* in: Zeitschrift für das Berg-, Hütten- und Salinenwesen 1943; 4. *Egg, E.* in: Schlern-Schriften. Bd. 77, Innsbruck 1951, p. 31 ff.; 5. *Ders.* in: Der Anschnitt (16) 1964, H. 3, p. 3 ff.; 6. *Ermisch, H.*: Das sächsische Bergrecht des Mittelalters. Leipzig 1887; 7. *Frölich, K.*: Goslarer Bergrechtsquellen des früheren Mittelalters, insbesondere das Bergrecht des Rammelsberges aus der Mitte des 14. Jahrhunderts. Gießen 1953; 8. *Isser-Gaudenten-thurm, M. v.* in: Berg- u. Hüttenmännisches Jahrbuch der kaiserlich-königlichen montanistischen Hochschulen zu Leoben und Příbram. Vol. 52, 1904, p. 407 ff.; Vol. 53, 1905, p. 39 ff.; 9. *Johannsen, O.*: Geschichte des Eisens. Düsseldorf 1953; 10. *Köhler, J.*: Die Keime des Kapitalismus im sächsi- schen Silberbergbau (1160 bis um 1500), in: Freiburger Forschungshefte D 13, Berlin 1955; 11. *Laube, A.*, in: Jahrbuch für Geschichte des Feudalismus. Bd. 2, Berlin 1978, p. 225 ff.; 12. *Ders.*: Bergbau und Hüttenwesen in Frankreich um die Mitte des 15. Jahrhunderts, in: Freiburger For- schungshefte D 38, Leipzig 1964; 13. *Ders.* in: Jahrbuch für Geschichte des Feudalismus. Vol. 1, Berlin 1977, p. 273 ff.; 14. *Ders.* in: Der Bauer im Klassenkampf. Berlin 1975, p. 83 ff.; 15. *Ders.*: Studien über den erzgebirgischen Silberbergbau von 1470 bis 1546. Berlin 1974; 16. *Mittenzwei, I.*: Der Joachimsthaler Aufstand 1525 - seine Ursachen und Folgen. Berlin 1968; 17. *Nef, J. U.* in: The Cambridge Economic History of Europe. Vol. II, Cambridge 1952, p. 430 ff.; 18. *Paterna, E.*: Da stunden die Bergkleute auff. 2 vols., Berlin 1960; 19. *Paulinyi, O.* in: Acta Historica XII. Budapest

1966, p. 25 ff., 261 ff.; 20 *Quiring, H.*: Geschichte des Goldes. Stuttgart 1948; 21. *Ratkoš, P.*: Povstanie banikov na Slovensku roku 1525-1526. Bratislava 1963; 22. *Rosenhainer, F.*: Die Geschichte des Unterharzer Hüttenwesens von seinen Anfängen bis zur Gründung der Kommunionverwaltung im Jahre 1935. Goslar 1968; 23. *Schmidt, U.* Die Bedeutung des Fremdkapitals im Goslarer Bergbau um 1500. Goslar 1970; 24. *Schwarz, K.*: Untersuchungen zur Geschichte der deutschen Bergleute im späteren Mittelalter, in: Freiburger Forschungshefte D 20, Berlin 1958; 25. *Smirin, M. M.*: K istorii rannego kapitalizma v germanskich zemlj ach. Moscow 1968; 26 *Sprandel, R.*: Das Eisengewerbe im Mittelalter. Stuttgart 1968; 27. *Strieder, J.*: Studien zur Geschichte kapitalistischer Organisationsformen. Munich/Leipzig 1914; 28. *Unger, M.*: Stadtgemeinde und Bergwesen Freibergs im Mittelalter. Weimar 1963; 29. *Vlachovič, J.*: Slovenská med v 16. a 17. storoči. Bratislava 1964; 30. *Westermann, E.*: Das Eislebener Garkupfer und seine Bedeutung für den europäischen Kupfermarkt 1460-1560. Cologne/Vienna 1971; 31. *Wilsdorf, H.*: [504] Georg Agricola und seine Zeit, in: Agricola-Gedenkausgabe. Vol. I, Berlin 1956; 32. *Ders.* in: Der arm man 1525. Berlin 1975, p. 103 ff.; 33. *Wilsdorf, H./Herrmann, W./Löffler, K.*: Bergbau - Wald - Flöße, in: Freiburger Forschungshefte D 28, Berlin 1960; 34. *Wilsdorf, H./Quellmalz, W.*: Bergwerke und Hüttenanlagen der Agricola-Zeit, in: Agricola-Gedenkausgabe. Ergänzungsbd. I, Berlin 1971; 35. *Schwazer Bergbuch*. Wethmar b. Lünen 1956; 36. *Schwerpunkte der Eisengewinnung und Eisenverarbeitung in Europa 1500-1650*. Köln/Wien 1974; 37. *Schwerpunkte der Kupferproduktion und des Kupferhandels in Europa 1500-1650*. Köln/Wien 1977.

Adolf Laube

2.4.4 Population

The *population law of "pure" feudalism*, which has not yet been influenced to any great extent by the germinal forms of capitalism, is determined by the principle of the food position. Of the entire adult population of reproductive age, not everyone could start a family, but only those who had a family-supporting full-time job. From the working population, these were the farmers and master craftsmen. Dependent producers (farmhands, maidservants, servants) living in the household of a peasant or artisan family were normally unable to start a family of their own or only came to start a family later, after moving into a full-time job that became available. [20: 421 ff.] This model corresponds to the feudal production relationship in its "pure" form. However, there are several variants, whereby in rural areas the endowment of the direct producers with the main means of production, the land, and the form and level of feudal exploitation were of fundamental importance. Based on the easily ascertainable conditions of the 18th century [11: 57 ff.], the following types emerge in the agricultural sector (in which 75-85% of all workers were employed):

– Areas in which the greater part of the land was farmed by large peasants with a predominance of produce and money rents and where closed inheritance of the peasant's landed property was common (hereditary landlordship). Due to the high level of feudal exploitation, the farm could not support two adult generations and the farm heir therefore married late on average. As the peasants had ownership rights to the farms, any heirs who left had to be compensated. The result was relatively low marital fertility. These farms constantly needed several non-family workers, most of whom lived on the farm. This resulted in a high single adult population rate, low marriage and birth rates and slow population growth. The population density in such areas was relatively low at the end of the 18th century, e.g. in 1804 there were 28 people per km in Old Bavaria².

– Areas in which the land was predominantly in the hands of small and medium-sized farmers, with product and cash rents predominating and the peasant landholdings subject to real division (redistributive landlordism), such as on the Middle and Upper Rhine, in Franconia and in parts of Hesse. Here the chances of marriage were favorable, as each succession resulted in new smallholdings, which people endeavored to enlarge through marriage. Marital fertility was very high, a common phenomenon in small farming areas, as each child represented unpaid labor. The population density in real division[505] areas was relatively high, e.g.

69.7 per km in old Württemberg in 1804². However, the small farms easily reached the limits of their viability. With high birth surpluses and rapid population growth, the Realteilungsgebiete were therefore preferred recruiting areas for mercenary armies from the 15th to 18th centuries and experienced several waves of mass emigration in the 18th (and even in the 19th) century.

– Areas of feudal manorial rule (East Elbe German territories, East Central Europe). There were two variants: The peasants obliged to pay a labor pension - according to one variant - sat on large estates (e.g. in Brandenburg, Pomerania, Prussia; where still available also in Mecklenburg, Holstein). The land of the feudal lord's estates, which were organized as manorial farms, was farmed with labour rents of 2 to 6 days per peasant per week. The peasant farms had to keep up their livestock and servants only to pay the feudal pension. The unmarried rate of the adult population was therefore high. However, in contrast to the anhereditary lordship, marital fertility was higher. For the most part, peasants had no property rights to their estates, so non-inheriting children could not claim compensation. The population density was low in areas of pronounced manorial rule, e.g. 20 per km in Pomerania in 1800².

The other variant was the manorial system with a predominance of medium-sized farms (Upper and Lower Lusatia, parts of Silesia, Greater Poland). The determining factor was the labour rent for the feudal lord's own farms, which were also predominantly organized as partial farms. However, due to the larger number of peasant jobs in relation to the total population, the single rate was lower than in the areas of the manorial lordship with large peasant farms. The marriage and birth rates were therefore higher.

These types of connection between the socio-economic structure of the countryside and the conditions for the reproduction and growth of the population can be found in all feudal states, with certain specific features that can be explained by the historical development of the territories. It can be assumed that they developed with the emergence of different types of agrarian constitution, i.e. in Central Europe since the dissolution of the villenation constitution in the 12th/13th century and since the emergence of the manorial system in the 16th century, the latifundia and transhumance in Spain and southern Italy. The population living from non-agricultural labor (crafts and trades, mining, trade and transport), as well as the classes and strata of exploiters including their entourage, reached a share of 15-25% of the total population under fully developed feudal production conditions and even in late feudalism. They were able to modify the reproduction and growth of the population, but they could only shape it in small regions with special conditions (e.g. mining districts).

Under feudal production conditions, the principle of the food place was modified in certain cases and the circle of jobs that made it possible to start a family was significantly expanded. This was always possible where capitalist relations of exploitation had developed in significant spatial concentration in the bosom of feudalism, such as in mining areas and above all in commercial production organized in the form of publishing or decentralized manufactories. In the textile industry in particular, production for the publishing house or decentralized manufacture was often based in the countryside, where it entered into a symbiosis with secondary agricultural employment. Rural commercial production encouraged the [506] creation of small agricultural jobs. The normal case was a combination of commercial work with the ownership of a small rural property. This provided favorable conditions for starting a family. As the marital fertility of these population groups was high, areas with rural cottage industries in late feudalism had high marriage and birth rates as well as rapid population growth. The area of Minden/Ravensberg, a linen weaving region, had 72.7 inhabitants per km² in 1804 (agrarian East Frisia only 35.2).

Under the conditions of "pure" feudalism, the differences in the socio-economic structure meant that marriage and birth rates and, depending on this, the mortality rate could vary. Since the early bourgeois revolution in Germany,

In the course of the 18th century, early capitalist elements developed to a greater or lesser extent. The population living under such socio-economic conditions was subject to different reproduction and growth conditions and exhibited the very high marriage and birth rates characteristic of the transition to capitalist production conditions and the first decades of fully developed capitalism. Within the framework of the generally still feudal relations of production, elements of a population law inherent to the capitalist mode of production were already at work here.

In the millennium of feudal production conditions in Europe, the *conditions for reproduction and population growth* did not change fundamentally. The average lifespan, marriage and birth rates as well as the death rate remained at the same level overall. The average lifespan in the periods of early and high feudalism was 25-30 years (total population) [12: 61] and in the decade from 1789-1798, for example, 28.6 years in the Electorate of Brandenburg (including Berlin) [22: 78 f.]. On the basis of Central European material from the 18th century, the following sequence of stages for the order of magnitude of natural population movement can be derived (see table):

Table

Sequence and magnitude of natural population movement in the 18th century [12: 61] [22: 75 f.].

Size level	annual marriages per 1,000 new marriages residents	Annual number of births per 1000 residents	annual number of deaths per 1000 residents	Number of children per marriage
Very low	6	30	20	3,0
Low	7-8	30-35	20-25	3,0-3,5
Average	8-9	35-40	25-30	3,5-4,0
High	9-10	40-45	30-35	4,0-5,0
Very high	10	45	35	5,0

The higher the birth rate, the more the overall mortality rate increased due to the high infant and child mortality rate. In the second half of the 18th century, their share of total mortality was around 50%, depending on the level of the birth rate, for example in the Electorate of Brandenburg in the decade from 1789 to 1798 at 50.8%, while at the same time the birth rate was 35.9%. [22: 78 f.]

[507] These ratios had basically remained stable in the millennium of feudal production conditions. The investigation of the cemetery of Espenfeld (Thuringia) [4: 142] from the 10th-12th century revealed a proportion of 52% children under 14 years of age in 438 burials. It can therefore be concluded that the birth rate in Espenfeld must have been around 40%, while the proportion of adults results in a death rate of 25-30%.

Even under purely feudal production conditions, the birth rate could reach significantly higher values if new settlement land was developed. New family-supporting full-time jobs were then created on a large scale. The marriage rate rose, as many people who had previously been excluded from reproduction came to start families, and with large reserves of settlement land, the marriage age could remain low for a long time and consequently the birth rate could also be very high. For example, the newly developed Oderbruch (east of Berlin) was settled after 1753. [11: 72] The average marriage rate for the years 1753-1755 was 15.2% in the district of Oberbarnim and 13.6% in the district of Lebus (most of the newly developed land belonged to these administrative districts), while the birth rate reached 58.2% and 53.6% respectively. The natural population movement in the settlement movements of the Middle Ages [18: 131 ff.] and modern times is similar and even more pronounced, e.g. in the expansion of land in the old German territories or France (10th-13th centuries), the feudal German eastward expansion (12th-13th centuries), the repopulation of Hungary in the 18th century, the development of the black earth region of the Ukraine in the 17th and 18th centuries. Birth rates of 60-65% were achieved here, and although the mortality rate was then 35-40% due to the high infant and child mortality rate, a birth surplus of 25-30% was possible, which meant a doubling of the original population (without any increase or decrease).

emigration) in 23-28 years. As land reserves were exhausted, population growth slowed, the single rate and marriage age rose and the birth rate fell.

The urban population almost always had a higher mortality rate - especially among infants and children - than the rural population. The share of the individual classes and strata of the population in its reproduction and growth was not equal. Marital fertility did not reach the limits of what was biologically possible everywhere. There was, certainly in late feudalism, a class-specific fertility as well as mortality. In some areas, for example, large peasants with secure property operated a birth restriction [11: 78], sometimes even to the point of a two-child system. On the other hand, the infant mortality rate among the propertyless classes was far above average. It was known that, on average, a peasant family raised four children, whereas a family with only a single tenant raised only two, despite high marital fertility. [27]

The *population development of peoples, states or regions* was therefore not uniform under feudalism, but took place in large spurts according to the level of development of the productive forces, the possibilities for the development of settlement land (or the exhaustion or blocking of land reserves due to the production conditions), the emergence of capitalist elements and, last but not least, the effects of wars and other disasters. There were relatively short periods of rapid population growth and long phases of stagnation or weak growth. In population history, the question of the causes of periods of accelerated population growth is of fundamental importance.

In bourgeois research, the opinion is held that population growth, apparently regarded as an independent variable, was the actual driving force behind all economic development [1: 25, 150, 152], including land expansion under feudalism. One speaks of a "population pressure". Marxist economic history assumes the fundamental importance of the development of the productive forces, which is ultimately not only the cause of the transition from one social formation to the next, but also, within the framework of a given social formation, the basis for a higher or lower carrying capacity of a population from the territory. Class struggles, alliance possibilities of the main feudal classes and the extent of market interdependence are decisive for the different concrete forms of the socio-economic structure in feudalism that are possible at a certain level of development of the productive forces. Apart from times of epidemics and war, the rural population in feudalism regularly had a surplus of births, albeit to very different degrees. Even a low birth surplus, assumed to be 5% annually, led to a doubling of the population in just under 140 years. In fact, however, during the millennium of feudal production conditions, the population by no means grew at a rate corresponding to this birth surplus. There were long periods of almost complete population stagnation or even setbacks. Unless new settlement land or new productive forces in agriculture and industry significantly increased the socially possible carrying capacity, the population growth resulting from the birth surplus did not reappear generatively for the most part. Mercenary services, emigration - where possible - and overlarge retinues and servants for feudal lords were the result of the population growth that could not be used productively under the given socio-economic conditions.

Significant advances in the productive forces, on the other hand, temporarily led to a rapid increase in population, primarily through an increase in the marriage and birth rate. With the end of the land-grabbing period characterized by military democracy, feudalism became established among the European peoples and now also shaped the development of population history. An increased transition to three-field agriculture in the early and high Middle Ages then led to a significant increase in carrying capacity and a simultaneous strong population growth. This gained in extent and duration through the massive development of new settlement land, primarily through clearing. The peak of clearing activity was between the middle of the 11th and the middle of the 13th century.

This was important because in the areas concerned, the period of new land development with the simultaneous introduction of three-field farming lasted around 50-100 years longer. The increase in surplus produce was also the basis for the greater separation of commercial production from agriculture. Together with the expansion of trade, this laid the foundations for the period of town foundation that began in the 11th century and reached its peak in the 13th century. This development took place in all European feudal states, albeit with certain shifts in timing. Between around 700 and 1300, the population of Europe increased enormously, especially in the century from 1150 to 1250.

For France between 1050 and 1300, an increase from 7.0 to 21.0 million inhabitants is calculated; for England, 0.6 million inhabitants are assumed around 800, 1.5 million in 1036 and 4.5 million in 1345 [14]. For Europe as a whole, a total increase of 22% is calculated for the half century from 1150 to 1200 [7]. Research is [509] unanimous that a radical change took place around 1300, and for the following 150-200 years one reckons with a very considerable decrease in population, but at least with stagnation. Bourgeois research assumes that epidemics (plague) were the actual cause and estimates the population decline in the individual countries at one third to one half. [2] [3: 48 f.] Further epidemics would not have allowed the population figures to rise again until the middle of the 15th century. Well-known bourgeois population theorists, however, reckoned with population growth again after the plagues of the 14th century, a view that is shared here. [20: 116] [21: 59] The plague, which affected East Prussia in 1708-1709, is the only one of the countless epidemic catastrophes in feudalism for which population-historical figures are available. [24: Vol. 1, Appendix, p. 83 ff.] A population loss of around 40% justifies a comparison of this epidemic catastrophe with those of the 14th and 15th centuries. Children and the elderly were clearly affected more than average in East Prussia in 1708/09, because in comparison to the years before the plague (1701-1708 = 100), the marriage rate in the decade from 1711 to 1720 only fell to 85 and the birth rate to 88. The regenerative power of the population remained above average. State-sponsored immigration to East Prussia began in 1722. Between 1711 and 1722, more than half of the epidemic losses had already been compensated for by the surplus birth rate. As Kuczynski has already shown, the agrarian depression of the 14th and 15th centuries was not primarily due to a decline in population. [17: 264 ff.]

A renewed acceleration in population growth since the last third of the 15th century is undisputed. This strong population growth, which was particularly evident in Belgium, the Netherlands and Germany, was linked to the early bourgeois revolution. The emergence of large mining and smelting districts (Thuringia/Saxony, Tyrol, Slovakia, Aachen area) and the formation of rural and urban weaving districts provided numerous new sources of food.

In Germany, population growth slowed down again after the defeat of the early bourgeois revolution in the second half of the 16th century. [15: 325 ff.] While the Thirty Years' War caused a sharp population decline in Central Europe, most European countries under feudal production conditions, although they suffered far less from wars than Germany, showed only slight population growth [14], such as Italy 1600 = 11.0 mill. In 1700 = 11.3 million; Denmark 1660 = 0.66 million inhabitants and then 0.84 in 1769; Spain 1514 = 8.25, 1768/69 = 9.16 million. Obviously, the carrying capacity corresponding to the level of development of the productive forces and the given production conditions was largely exhausted. Famines occurred repeatedly during feudalism [9] and led to increased mortality. In 1771/72, for example, Electoral Saxony lost 100,000 people (approx. 6% of the population). [8: 127] Wars promoted the spread of epidemics as a result of troop marches. The plundering of grain supplies and livestock by the troops resulted in famines and intensified the effects of the epidemics. It was typical of the wars of the feudal era that the losses due to fighting were far less than those due to epidemics, disease and hunger. [25] The best-known example is the Thirty Years' War. The population of Germany fell by a third to a half, about 5-8 million people. It is estimated that 200,000-300,000 soldiers in battles. As a result of epidemics and direct combat operations, the number of

In the course of the Northern War of 1700-1721, the population of Estonia fell from 280,000 in 1698 to 80,000-120,000 in 1712 [23: 205 ff.] The so-called cabinet wars of the 18th century also claimed [510] large numbers of victims. Saxony was one of the main theaters of war in the Seven Years' War from 1756-1763 and suffered a population loss (increased mortality and birth deficit) of 140,000 people (= 8% of the total population). [8: 126]

Although towns and settlements with town-like functions were not absent in the period of early feudalism, the share of the population of such settlements in the total population in early feudalism was only insignificant. The number of towns and the urban population only grew considerably during the period of town foundation from the 11th century onwards. The urban population must have grown much faster than the rural population during this period. For the period around 1300, after the wave of city foundations had passed its peak, it is estimated that the urban population accounted for 20% of the total population in Germany. [1: 69] (Kötzschke [16: 116], however, assumes only 10-15% for 1300-1350).

It is typical of the population history of the feudal city that until the transition to capitalist production conditions, the proportion of the total population accounted for by the urban population, once reached in the 13th/14th century, did not increase significantly. After the completion of the expansion of the land, after the dissolution of the villicization constitution and the development of different types of agrarian constitution, there was evidently a dense network of towns corresponding to the state of the productive forces and the state of the social division of labour in order to meet the needs of the surrounding agricultural area for urban functions (certain trades, market, partly administrative functions). Thus there were towns that still had a considerable increase in population after 1300, but most of them stagnated, and in quite a few of them the number of inhabitants even declined for a shorter or longer period after a peak for various reasons (e.g. [26]). Around 1750/1800, the proportion of the urban population in the individual territories amounted to 20-40% of the total population, e.g. in Saxony in 1750 36.0% [8: 163], in the Duchy of Magdeburg in 1805 40.1%; in Pomerania in 1805 20.5% [5: 444 f.] and in France before the Revolution of 1789 a quarter or a third [19: 7]. In some regions, the proportion of the urban population increased in the course of the early bourgeois revolution, for example in Saxony, where 32.5% of the population lived in towns by 1550. [8: 163]

The majority of the towns were dwarf and small towns, and a large proportion of their inhabitants lived from agriculture. Such towns had fewer than 3,000 inhabitants and, at this size, represented the type of agricultural and artisan town with market and, in some cases, administrative functions. The medium-sized towns of European feudalism had between 3,000 and 10,000 inhabitants. They had more pronounced market functions that favored their location and were often also the center of a larger landscape. Manufactories were mainly founded in towns of this size due to the availability of labor. If manufactories settled in smaller towns due to certain location conditions, they often grew to this size due to their new economic function (e.g. Plauen: 1785 = 3226 inhabitants, 1805 = 6138). [6: Tab. VI] Towns with more than 10,000 inhabitants were large towns under feudal production conditions. Even those with the most favorable location conditions did not reach more than 30,000-40,000. Large cities with more than 100,000 inhabitants only emerged as the centers of highly centralized feudal states (Paris, Vienna, Berlin) and could only exist if they were conveniently located in terms of transport, as otherwise the food supply was not guaranteed. If necessary, elaborate canal constructions were therefore necessary (Berlin). Occasionally, trading cities of enormous importance reached populations of this size (Venice 1550 = 165,000; Hamburg 1800 = 130,000 inhabitants).

[511] Most cities had a constant excess of deaths from a certain number of inhabitants, around 10,000 or more. The causes were inadequate hygienic conditions, such as poor water supply and lack of sewage systems. This necessitated constant immigration from the countryside, and the question arises as to the origin of the immigrants or their release from the socio-economic ties of the rural feudal powers. It

These are quite considerable numbers of immigrants. Between 1701 and 1750, Leipzig had a death surplus of 9,230 people, while its population rose from 21,696 to 29,760 between 1700 and 1748. The civilian population of Berlin rose from 105,761 to 142,099 between 1771 and 1797, while Berlin's civilian population had a death surplus of 6,658 people during the same period. In total, Berlin must therefore have had a migration gain of 42,996 civilians in these 28 years.

Already in the period of early feudalism, the *feudal state* pursued a *population policy* by securing conquests through peasant settlements and seeking to break insurrectionary movements or the resistance of oppressed peoples through forced resettlement. Until the end of the clearing period towards the end of the 13th century, it was common practice for both secular and ecclesiastical feudal lords to strengthen their power and income by employing feudal dependents. This was practiced on a grand scale in the course of the feudal German eastward expansion and similar undertakings. The founding of towns in the High Middle Ages was also initially aimed at strengthening the economic and political power of the feudal lords and was also effective in terms of population policy. The migration of population groups with special knowledge and skills can also be observed as early as high feudalism. For example, settlers from the Netherlands were sought-after specialists by the feudal lords during the feudal German expansion to the east due to their knowledge of hydraulic engineering; German miners were also brought to Sweden and the Balkans as early as the 15th century. Particularly in the course of mercantilist (cameralist) economic policy in the 17th and 18th centuries, skilled workers from a wide range of areas were attracted. There were also early seasonal migrations of workers, particularly in agriculture. The causes were often structural overpopulation in the areas of origin. The voluntary or forced migration (or emigration) of minorities, namely religious communities, can be observed throughout almost the entire period of European feudalism. The European trade in African slaves to the North and South American colonies must also be regarded as large-scale population migration, albeit under the most brutal coercion. In late feudalism, the feudal states developed different population policies. Some states pursued a restrictive population policy by trying to make marriage more difficult. Behind this was the fear of overpopulation and the inability to pursue an economic policy that would have provided work and food for the growing population. Other states behaved passively, such as Electoral Saxony, where the emerging publishing houses and manufactories offered sufficient new employment opportunities. In contrast, there were states, namely the Habsburg monarchy and Brandenburg-Prussia, which pursued an active population policy in the 18th century and attracted large numbers of agricultural settlers in addition to specialists to build up certain branches of industry. The prerequisite was the existence of large land reserves suitable for settlement, such as those available to the Habsburg Monarchy in Hungary and Brandenburg-Prussia in the partly sparsely populated eastern Alb territories. The European states, which had already become colonial powers under feudalism, had already **[512] experienced** a certain amount of overseas migration at this time, such as Spain, Portugal, England, France and the Netherlands. The numbers were small and, in the case of France (Canada) and Holland (South Africa), only amounted to a few thousand people. Until the end of the colonial period, emigration from Spain and Portugal to South America also remained low, and emigration from England, Scotland and Ireland only reached mass proportions after the triumph of capitalist production relations. Only a few thousand people emigrated overseas from the German states of the 17th and 18th centuries.

The *incipient transition to capitalist production conditions* led to a sharp acceleration in population growth in the various countries. The number of full-time, family-supporting jobs increased rapidly, and consequently the marriage and birth rates rose considerably. Population growth accelerated considerably. The following population figures are given for England (excluding Scotland): 1600 = 5.0 million, 1688 = 5.5 million and 1760 = 6.5 million. After the onset of the industrial revolution, the number increased to 9.2 million by 1801.

Mill. The English researchers [10: 221 ff.] assume an increase in the birth rate, but above all a decrease in the death rate, which significantly increased the birth surplus.

In the German states, a decline in the death rate cannot be observed in the decades of the beginning transition to capitalist production conditions. Towards the end of the 18th century, new productive forces began to penetrate agriculture and industry. [11] This resulted in an increased demand for labor and the emergence of numerous new family-supporting food sources. This was particularly pronounced with the beginning replacement of the feudal labor rent in the area of manorial rule. The marriage rate in Pomerania rose from 7.7% in the years 1791-1795 to 8.3 in the years 1801-1805. In the same period, the birth rate rose from 35.0 to 40.0% and the birth surplus from 9.3 to 14.6%. There was also an increase in the marriage and birth rate in the last decade of the 18th century. However, there is a lack of more detailed studies on which strata of the urban population were primarily responsible for this development, and in particular we know very little about the generative behavior of the early proletarian strata.

Literature:

1 *Abel, W.*: Geschichte der deutschen Landwirtschaft vom frühen Mittelalter bis zum 19. Jahrhundert. Stuttgart 1967; 2. *Ders.*: Die Wüstungen des ausgehenden Mittelalters. Stuttgart 1955; 3. *Ders.*: Agrarkrisen und Agrarkonjunktur. Berlin(West)/Hamburg 1966; 4. *Bach, H./Dusek, S.*: Slawen in Thüringen. Weimar 1971; 5. *Behre, O.*: Geschichte der Statistik in Brandenburg-Preußen bis zur Gründung des königlichen statistischen Bureaus. Berlin 1905; 6. *Bein, L.*: Die Industrie des sächsischen Vogtlandes. T. II, Leipzig 1884; 7. *Bennett, M. K.*: The Worlds Food. 1954; 8. *Blaschke, K.*: Bevölkerungsgeschichte Sachsens bis zur industriellen Revolution. Weimar 1967; 9. *Curschmann, F.*: Hungersnöte im Mittelalter. Leipzig 1900; 10. *Glass, V. D.* in: Population in History. London 1965, p. 151 ff.; 11. *Harnisch, H.* in: JWG 1975, T. II, p. 281 ff.; 12. *Herrmann, J.*: Spuren des Prometheus. Leipzig/Jena/Berlin 1975; 13. *Acsady, G./Nemeskeri, J.* in: Homo, vol. VIII, Göttingen 1957, p. 161 ff.; 14. *Kirsten, E./Buchholz, E./Köllmann, W.*: Raum und Bevölkerung in der Weltgeschichte (= Bevölkerungs-Ploetz). Vol. 1-4, Würzburg 1965-1968; 15. *Körner, F.* in: Forschungen und Fortschritte. Vol. 33, 1959, p. 321 ff.; 16. *Kötzschke, R.*: Grundzüge der deutschen Wirtschafts- [513]geschichte bis zum 17. Jahrhundert. Leipzig 1923; 17. *Kuczynski, J.* in: JWG 1963, T. III, p. 284 ff.; 18. *Kuhn, W.* in: Studium sociale. Festschrift for K. V. Müller. Cologne/Opladen 1962, p. 131 ff.; 19. *Kulischer, J.*: Allgemeine Wirtschaftsgeschichte des Mittelalters und der Neuzeit. Vol. 2, Berlin 1954; 20. *Mackenroth, G.*: Bevölkerungslehre. Berlin(West)/Göttingen/Heidelberg 1953; 21. *Mombert, P.*: Bevölkerungslehre. Jena 1929; 22. *Mueller, W. H.*: Tabellarische Nachrichten über die Population der gesamten kgl. preußischen Staaten mit Nachweisung der getrauten Paare nach ihrem verschiedenen Zustand, so wie der Gestorbenen nach den Jahreszeiten, dem Alter und den Hauptkrankheiten. Part 1, which contains the provinces of Chur- and Neumark. Berlin 1799; 23. *Palli, H.* in: Studia Historica in honorem Hans Kruus. Tallinn 1971, p. 205 ff.; 24. *Süßmilch, J. P.*: Die göttliche Ordnung in den Veränderungen des menschlichen Geschlechts aus der Geburt, dem Tode und der Fortpflanzung erwiesen. Berlin 1775; 25. *Urlanis, B. Z.*: Bilanz der Kriege. Berlin 1965; 26. *Wähler, M.*: Die Bevölkerungsbewegung in Erfurt während der letzten Jahrhunderte. Erfurt 1940; 27. *Central State Archives*. Historical Dept. II, Rep. 96 A, C 20, fol. 97.

Hartmut Harnisch

2.4.5 Property and class relations in the countryside

The feudal mode of production, which immediately preceded capitalism, was determined by agrarian production. The mass of people were productively active in agriculture, and the development of classes and strata was decisively determined by the respective legal or factual relationship to the land, the main means of production of the feudal social formation; for: "The main property during the feudal epoch thus consisted in landed property with serfdom chained to it" [MEW 3: 25].

The feudal-dependent peasantry, one of the two basic classes of the feudal order, emerged in the process of feudalization. The decline of the slave society and the dissolution of the genealogical order took place in parallel, particularly in parts of the Roman Empire, and were closely related in terms of content, resulting in the emergence of the peasantry farming on the basis of small property (Al- lod). The protracted process of the formation of the feudal-dependent peasantry as a class [12: 105 f.] [22: 36 f.], which lasted from the land-grabbing period until the 7th/8th (France, Italy, Byzantium), 9th/10th (Germany) and 10th/11th centuries (Russia, Poland, Hungary). [36] [37: 131 f.] [54], which Charlemagne's military campaigns, among other things, "fostered in a greenhouse fashion" [MEW 23: 755] [32], was effectively influenced by elements of the preceding social formations.

The feudal-dependent peasantry developed a relative uniformity, as it was directly linked to the means of production, worked closely together in the agricultural production process (village community, marquisate cooperative) and, above all, had common interests vis-à-vis the feudal nobility, which was emerging as the ruling class. However, the feudal-dependent peasantry was also clearly differentiated due to the specific nature of the production process, the fragmentation of land ownership, the differences in property rights and personal legal status. Unity, above all as an exploited and oppressed class, in the labour process and in the struggle against feudal rule, on the one hand, and differentiation, above all in legal terms, on the other, characterize the feudal peasantry as the **[514]** basic class of feudal society. At its core, the feudal-dependent peasantry consisted of producers with small farms who were obliged or forced to make payments to the ruling feudal class in various forms (Urbare). [33: 9 f.] In addition, there were parts of the rural population who had only limited land ownership or were completely excluded from independent land use, namely the unfree servants working on the feudal estates or the laborers working in peasant farms; there were also village and feudal artisans who were only partially or temporarily connected to agriculture. The number of people who did not work predominantly in agriculture remained small for centuries and only increased with the development of commodity production.

The differentiation of the peasantry was thus a given from the outset with regard to the personal legal status of the peasants and their right of ownership of the farmland. On the one hand, it was leveled [24] [27] by the commonalities of the situation as an exploited and oppressed class, on the other hand, it became more pronounced due to differences in the factors of production (e.g. climate, soil quality) or in the social conditions (e.g. power relations, legal situation). Particularly from the 11th century onwards, new trends brought about by commodity production had an impact on the peasantry and the rest of the agricultural population. These included, first and foremost, the development of markets and towns. Numerous peasants moved to the towns and increased their population; masses of peasants took part in the expansion of the countryside and the peasant settlement in the course of the feudal German expansion to the east [10] [53] [58]; the entire peasantry was affected to a greater or lesser extent, sooner or later, by the differentiating effects of commodity production. The social structure of the village gradually developed, which was finally characterized by the fact that, in addition to the owners of peasant hooves (in individual cases also owners of several hooves), the half-hoofed (half-farmers) as well as the gardeners, cottagers and housemates [20], who formed the majority of the rural population as plebeian-pre-proletarian classes (rural poverty) in the epoch of transition from feudalism to capitalism. [39]

The differentiation that deepened in the course of feudalism was thus an expression of the development and modification of the structure of the peasantry and the rural population, but without changing the feudal character of class relations and without abolishing the class antagonism inherent in feudal relations. The decomposition and destruction of feudal production relations only took place in the course of the bourgeois revolutionary cycle [59] and in many countries with clear reference to the feudal property rights of the peasants through redemption and purchase. [29]

Feudal society was an exploitative society whose economic basis was feudal land ownership. Land ownership was in the hands of the feudal aristocracy, which played a progressive role in the early Middle Ages. The ruling and exploiting class was highly differentiated. Their power of disposal over land, the main means of production of the feudal social formation, ranged from noble property to hereditary fiefs and encompassed princely dynastic property as well as royal crown estates (imperial estates, domains), landed estates and estates. The ecclesiastical manor [9], which was subject to general feudal law but not subject to heredity and was therefore more stable in its existence, occupied a special place in terms of its extent and relatively tight organization. The church property ranged from the [515] landed property of the cathedral chapters to the rich monastery and urban church property and the economic resources of the village priests.

The feudal nobility was also highly differentiated in all its forms with regard to its legal position, its economic interests and its share in the handling of non-economic coercion. However, thanks above all to its military organization, it also found great unity and uniformity of action as a class in the class conflicts with the feudal-dependent peasantry in order to consolidate or defend its positions of power.

The legal forms for securing and realizing land ownership corresponded to the variety of manifestations of the power of disposal over the means of production. Within the framework of feudal law, the feudal lords disposed of all land in a graduated manner and often in open conflict with one another (feud). However, they could only realize land ownership by granting it to the direct producers in the form of independent farms. [31]

This form of legal power of disposal over landed property is *known as dominium directum* (superior ownership). It corresponded to the graduated *dominium utile* (sub-ownership, right of use) of the feudal peasantry, a right of ownership whose quality determined the form and amount of the rent, the personal legal position of the peasants and the de facto or legal right of inheritance of the peasantry. [20] The feudal peasantry was independent [42] in the management of the peasantry, insofar as it could use the house and farm, agricultural inventory, livestock and arable land, or use its own labor and *that* of family members in the individual economy. [17] The peasants were, however, bound by the ownership of land and the obligations arising from it, as well as by the integration of their economy into the system of agricultural production regulated by the village community and the market cooperative. [4] This was determined by three-field farming, the most widespread form of arable farming with compulsory land use and other regulations applicable to farming. [3] The farmers were also involved in the common use of pasture, forest, water and fallow land, and they regulated all of the problems through the Weistümer, i.e. customary rights that were passed down orally and later fixed in writing. [14] [48]

The feudal-dependent peasantry was thus locked into a variety of rights of domination as well as collective obligations and relationships [47], which arose from the reciprocal relationship between productive forces and production relations or had an effect on this reciprocal relationship. The most important basic conditions for the organization of dependency and exploitation relations were the connection of the direct producer with a small agricultural enterprise, his bondage to the land and the "technology that had solidified into routine" [LW 3: 187] as well as the extra-economic constraints perceived by the feudal lord. Another characteristic feature was the natural economic character [MEW 25: 794 f.], which decisively shaped the working and living conditions of the feudal-dependent peasantry and the rest of the village population despite the sometimes considerable production of goods.

Marx formulated the general assessment "that the appropriation of rent is the economic form in which property is realized" [MEW 25: 647]; the specific form in which the rent appears, whether it is labour, product or money rent, depends on the economic and political relations existing between the classes and strata.

The labor rent is that form of feudal rent which the peasant practically pays on [516] the feudal lord's estate, i.e., in order to be able to demand rent in the form of labor regularly in a certain proportion, the feudal lord must have an agricultural holding (Fronhof, Villa, Salhof, Bauhof) at his disposal, which he himself or a steward appointed by him manages. Labor rent (Frondienst) is separated in time and space from the work of the direct producer for himself; it is forced labor for the landlord, which is constant in terms of its scope, "regulated by customary law or written law. [MEW 25: 802] But "the productivity of the remaining days of the week (i.e. not demanded as compulsory labor - the author), which the immediate producer himself disposes of, is a variable quantity that must develop in the course of his experience. [MEW 25: 802] In this dialectic lies the possibility of the double productivity of peasant labor power, the starting point for peasant commodity production and the resulting development of the feudal rent.

The product rent replaced most of the previous serfdom by payments in kind and gave the peasant the opportunity to "gain time for surplus labor, the product of which belongs to himself". [MEW 25: 804] The product rent was very often connected with the remains of drudgery, especially in the peak periods of the agricultural production process; it was characterized by the indispensable connection between agriculture and domestic trades and was very suitable for "providing the basis for stationary social conditions". [MEW 25: 804]

The money rent is "the ground rent that springs from a mere transformation of the product rent, just as the latter itself was only the transformed labor rent". [MEW 25: 805] The peasant now paid the price of the product to the landowner, he paid "unpaid labor performed without an equivalent in the form of the surplus product transformed into money". [MEW 25: 805] Now part of the product worked by the peasants was produced and sold as a commodity, because the money was needed to pay the rent to the feudal lord.

In view of the sources and the considerable territorial and temporal differences, it is difficult to determine the amount of the pension claim or benefit. The amount of the labor annuity depended on the extent of the feudal lord's own holdings and the size and location of the land. This land, which was farmed from the manorial estate, could only be expanded within certain limits, as the means of labor were "petty, dwarfish, limited" [MEW 20: 250] and thus prevented the formation of large agricultural enterprises. The number of peasant farms belonging to a manorial estate and the extent of their labor obligations therefore varied, as neither all peasants in a village or a manorial estate performed serfdom [24] [27] nor did all peasants obliged to perform serfdom provide the same amount of labor. In the Middle Ages, the number of working days per week was probably 2-3 with a well-developed manor system. The payment of a labour pension had a standardizing and stabilizing effect, especially as every attempt to increase the amount of work met with resistance from the peasants. While the labor rent was limited by the expansion of the feudal lord's own holdings (feudal farm), the development of the product rent was determined by the fact that the accumulation and consumption, transport and sale of agricultural products encountered considerable difficulties under the natural economic conditions. Although the increase in the size of the feudal lord's entourage could increase the consumption of natural products, overall limits were set. These limits were extended, or they were removed in the case of the monetary form of rent. The increase in this was by no means arbitrary, but with the mass transition to money rents, commodity production and socio-economic differentiation penetrated ever wider areas of feudal society, triggering the feudal lords' desire to increase rents and the peasants' fierce resistance to all resulting measures.

As an economic form of realizing feudal land ownership, the feudal land rent has determined socio-economic development in Europe for more than a thousand years and has been characterized by a variety of "endlessly different combinations in which the various forms of rent can combine, falsify and intermingle". [MEW 25: 804]

The relations of dependence and exploitation in the feudal social formation were largely determined by the fact that the feudal peasant was "'owner' of the means of production and working conditions necessary for the production of his own means of subsistence" [MEW 25: 798]; this resulted in the relationship of domination and servitude. Since the results of his productive activity could only be extorted from the producer, who was equipped with the means of production and had all the necessary working conditions, by force or by the constant threat of force, the feudal landowner had to have extra-economic coercion at his disposal, "whatever form this may take". [MEW 25: 799]

The development of dependency and exploitation relations was therefore closely related to the overall conditions of ownership of the means of production, resulted from the realization of feudal land ownership and was dependent on the balance of power and the struggle of the classes. The more pronounced the development of the feudal estate system with a labor rent, the more necessary it was for the direct producer to be tied to the feudal estate or to the person of its owner. The more pronounced the money rent as the predominant form of feudal rent, the more the personal freedom of the peasant and the relatively independent organization of his productive activity were possible without the "more or less disruptive interruption by work for the landowner" [MEW 25: 803]. The more pronounced the product rent [8], the more stable were the social conditions on which it was based, because the peasant economy was no longer subject to extra-economic coercion in its brutal form, but it was also not affected by the progressive effects of the money rent. New conditions for a freer organization of production relations and for greater independence of the peasants in economic management were the result of the increased productivity of peasant labour. The feudal-dependent peasantry created the conditions that went beyond the labor rent by fighting against the brutal coercion of forced labor and enforcing its extensive abolition. The production of goods and market relations, the formation of towns and the development of trade not only brought about a new stage in the division of labor between the countryside and the town, between agricultural and artisanal production, they also resulted in a less rigid form of dependency, which, under the sign of the increasingly prevalent and ultimately dominant monetary form of feudal rent, also included the possibility of greater exploitation of the peasants. As a result of this development, new forms of settlement emerged during the 12th and 13th centuries. The Waldhufen-, Hagenhufen- and Marschendorfer [38] [56: vol. 9, p. 260 f.] emerged, and the legal forms developed in the process had an effect on the majority of the old settlements. This development is the general expression of the fact that in fully developed feudalism

"the command over the achievements of the peasants became more important than that over their persons" [MEW 19: 326]. Accordingly, serfdom and other forms of bondage [518] receded, while at the same time the feudal state was institutionalized and class rule was consolidated. The typology of the socio-economic structure only becomes clear if we take into account all the factors relevant to the organization of production and property relations. The development of different types proves to be an expression of the diversity in which the factors determining feudal production relations can interact. The aim of a typology cannot be to identify as many regional peculiarities as possible, but rather to work out the decisive characteristics of the feudal agrarian structure; this should be done on the basis of previous assessments. It can be assumed that for centuries the development of the productive forces of feudal society consisted of improvements in the tools of labor [6], encompassed the labor experience and diligence of peasant producers, and was directed above all towards the consolidation of "rule and order" [MEW 25: 801]. The property relations retained their feudal character, despite some modifications in the legal forms, and the feudal rent was preserved in its three forms. However, the predominant form of rent changed and there were regionally differentiated changes in the relationship between the forms of rent. As Marx had already pointed out [MEW 25: 804], the labor and monetary forms of feudal rent, where they predominated, clearly determined the type of agrarian constitution as landlordism or manorial rule, while the product rent was given a more specific role.

did not have such a type-forming function. This in no way excludes the importance of the product rent, especially in fully developed feudalism [8], but it was not able to shape its own type of agrarian constitution. It always appears alongside one of the two prevailing forms, as an expression, so to speak, of the still largely natural economic character of the socio-economic structure. [LW 3: 187]

This problem becomes most apparent when we analyze the transitional period from feudalism to capitalism, during which landlordism and manorialism coexisted and determined the socio-economic structure of the countryside. Since the

From the 16th century onwards - in some cases with preliminary stages going back further - the type of manorial lordship developed in the areas east of the Elbe, which was based on a growing, ultimately predominant labor rent, while the type of landlordship with a predominantly monetary rent, which had been established mainly by the peasants since the 12th and 13th centuries, remained characteristic of the areas west of the Elbe.

[27] [30] [41] This difference deepened in the course of late feudalism and revealed an agrarian dualism, which in its agrarian constitutional-historical form was a dualism of landlordism and manorialism, but which in its social basis was a dualism of feudal land ownership requiring money rent or labor rent. The feudal character of land ownership remained, even if it was varied by bourgeois tenants or more favorable peasant property rights. Feudal agrarian dualism was determined to a large extent by the overall economic developments of the transitional epoch, such as the newly emerging market relations and the new dimensions of commodity production.

In the manorial system the pecuniary rent predominated, i.e. it was characteristic that the feudal lords did not run their own farms or that the number of existing farms was small and these did not determine the agrarian structure. The development of the manorial lordship as a type was characterized by regional peculiarities, so that a southwest German, southeast German, northwest German, west German [519] and central German variant [27: 188 f.] [43: 44 f.] can be distinguished. Differences between these various forms of manorial lordship can be seen in the personal legal status of the peasants, in their property rights, especially in the variants of the bourgeois right of inheritance, and in the amount of the share of the labor rent. In some areas, the development of landlordism was influenced by commercial production, especially in the low mountain ranges. In general, it can be stated that the manorial system was a general, widespread phenomenon in the Middle Ages and can be traced in different forms and functions in Western, Central and Eastern Europe as well as in Byzantium. [13: 22, 36 f.] [23: 65 f.] [42: 140 f.]

In the manor system, labor rent predominated, i.e. it was characteristic of the feudal lords that they established and expanded their own farms by laying peasant plots, in individual cases also buying them out, not reoccupying plots that had become deserted or had been abandoned due to war, and increasing the arable land belonging to their own farms in every conceivable way.

[35] This increase in the size of the farm fields was linked to an increase in the amount of landlord's servitude, as the vast majority of feudal manorial estates were part-farms [16] that relied on the servitude of efficient peasant holdings, i.e. those equipped with labor and inventory. For this reason, the tendency to lay down peasants and to increase the size of their holdings also corresponded to a tendency to stabilize peasant positions, to secure their occupation and to equalize their size and pension obligations. By forcing servants to work as farmhands, the feudal lords were able to secure a workforce for their farms over and above the servitude.

The manorial system also showed regional differences. It was most developed in Holstein, Mecklenburg and Swedish Pomerania and caused the sharpest decline in the number of peasant jobs in the knightly parts of these territories. At the same time, it was associated with the harshest forms of serfdom. In Brandenburg-Prussia [15], territorial absolutism restricted the right to build and thus the expansion of the manorial estates for both fiscal and military policy reasons [46], without being able to prevail over the nobility on this issue.

The most important economic lever for the emergence and development of manorial rule was trade in agricultural products, especially grain. [1] The Junkers pushed the peasants out of the markets and gained access to export opportunities, primarily through their privileges and also vis-à-vis the cities, and exploited the grain boom triggered by the grain demand of Western European countries. [1] [2]

This showed how different the effects of commodity production and market relations could be depending on social development. Whereas in the early feudal period, when landlordism was largely characterized by labour rents, peasant commodity production had led to the dissolution and disintegration of the Fronhof association, in the epoch of the transition from feudalism to capitalism, the "ravenous hunger for surplus labour" [MEW 23: 249] was the lever for the monopoly-like position of the landlords in the market, while at the same time preventing peasant commodity production and market relations. What under the high feudal conditions had increased the independence of peasant farms, promoted their detachment from the feudal estate and decisively improved the personal legal status of the peasants, led under the late feudal conditions of landlordism to ever greater involvement in the feudal lord's own economy, to the shackling of producers to the land, to the sharpest form of second serfdom.

[520] The development of the socio-economic types of agrarian structure in the transitional epoch was characterized by the refeudalization that set in after the defeat of the early bourgeois revolution. Refeudalization meant stagnation and regression of the early capitalist approaches achieved in mining as well as in textile and metal production [51]; refeudalization meant that the influence of these early capitalist production relations on the socio-economic structure of agriculture quickly waned and the second serfdom was introduced. [18]

All German territories were affected by this development. The continuous spread and deeper development of the second serfdom can neither be legally restricted to certain legal norms of personal bondage, nor can it be regionally limited to the East Elbe manorial system and its development. Rather, the second serfdom is an expression of the socio-economic development of the transitional period, albeit with regional differences and particularly pronounced in the East Elbe areas with manorial rule.

A deeper analysis of feudal agrarian relations reveals that feudal property continued to claim and exercise, increase and sharpen command over both people and services. This explains why agrarian dualism did not, as older research [26] had overemphasized, separate the areas east and west of a rigid borderline. Firstly, there were transitional areas and, secondly, there were clearly recognizable elements of the other type within the prevailing manorial structure.

Thus, a not insignificant number of direct producers, above all landed peasants, in the eastern Elbe territories were not part of a landlord's own economy and were therefore not subject to compulsory service in its strictest form. And in areas with pronounced manorial lordship, feudal lord-owned farms were by no means absent; where they did exist, their operation was characterized by labour rent and the tendencies associated with it in legal terms.

It must therefore be assumed that both types were feudal in nature, and consequently both also formed obstacles to the development of productivity, and both had to be overcome in the process of bourgeois upheaval, which in Germany, as is well known, took place as a "revolution from above". The "Prussian way" of developing capitalism in the agricultural economy was part of this revolution, and it particularly favored the feudal lords of the manorial areas. They became capitalist Junkers, their farms became large-scale capitalist agricultural enterprises [7], and agrarian dualism took on a capitalist character.

The peasant class struggles grew out of the feudal relations of production and were determined by the fact that the peasants, equipped with smallholdings, did not want their

social position as owners of the means of production [MEW 25: 798]. This resulted in the forms and goals, but also the limitations and tenacity of the peasant class struggle. [40] The peasants fought for independence, the existence and development of their own economies, above all for favorable property rights. They wanted to defend the positions they had won in protracted disputes and secured through custom and tradition, and they did this individually or together with other farmers, above all on the basis of their most important organization, the community. [19] Therefore, individual and collective forms of peasant struggle merge into one another in a way that is difficult to differentiate, and overall this struggle was characterized by the socio-economic conditions of the feudal social formation.

The dialectic of the peasants' struggle is shown above all by the fact that they could not achieve the goals they sought individually, but only collectively, be it through demands, complaints and lawsuits, be it through refusal of the feudal rent or through open resistance. The fundamental prerequisite for successful actions against the feudal class was above all the willingness of the peasants to leave the farm and the village in order to achieve their respective goals, so that by joining forces with other peasants or other village communities they could carry out the actions necessary to defend their small holdings or to assert their interests. It is a significant historical achievement that peasants and members of other strata of the village temporarily - and for weeks, even months, during the height of open class battles - left their farms and the villages whose development or defense was the ultimate goal of all their demands and efforts. It was not uncommon for forms of organization to become necessary that went beyond the village community, namely when a large number of insurgents had to be supplied with food, weapons and equipment for a long time, when they had to be organized militarily for the clashes. [5] [50]

The limitations of the struggle resulting from the simple production of goods and the spatial expansion of the actions necessary for the collective enforcement of more favorable conditions for the further development of their own economies were thus in contradiction to each other, which could be resolved temporarily, but not fundamentally. The predominant forms of peasant struggle under feudalism were therefore those that were driven by the interests of the individual peasant or the village community without striving for more far-reaching or fundamental changes; the predominant forms were the lower forms, which were intended to strengthen the peasant economy and thus objectively the basis of the feudal order itself. As a result, peasant activities that went beyond the parish and lordship, i.e. reached a regional scale, were not very numerous, and peasant wars as the highest form of peasant struggle on a national scale remained rare.

The disputes between the feudal lords and the feudal peasants were largely determined by the lower forms of class struggle. These arose from the relations of production and manifested themselves, for example, in the individual or collective refusal of pension obligations or some form of feudal pension. They related to the demands of the feudal lords or the feudal state, which were particularly oppressive for the peasants and contradicted their customary rights. To cite a typical example, the quality of the servitude was so poor, i.e. with so little labor or with such inadequate inventory, that it remained ineffective for the feudal lord. In the course of the 12th and 13th centuries, this was one of the reasons for the transition from labor to product or money rents. By drastically worsening the quality of serfdom, the builders hindered the realization of feudal property in its prevailing form. They caused recognizable damage to the feudal lords and thus ultimately brought about the dissolution of the Fronhofsverbände, i.e. the abolition or at least considerable reduction of the disruptive interventions in their own economy that were associated with the feudal services. Just as the development of commodity production had been an important economic achievement of the peasants within the framework of the feudal court constitution, their activities directed against the feudal court or the labor rent now formed the prerequisite for the higher development of the feudal economy, for commodity production on a larger scale. [34] [55: 67]

ff.]. Other forms of peasant class struggle were the refusal to pay interest, especially individual components of the money rent, and the payment of the product rent in poor quality. What these and other forms had in common was that they were directly based on the given economic conditions of simple commodity production and were intended to strengthen its preconditions. At the limit of these forms of class struggle lies the flight of the peasants, the withdrawal. The peasants thus changed to new working and living conditions, which were also feudal in character, but whose conditions were or appeared to be more favorable. If the departure took on a mass character, as was the case in the 12th and 13th centuries due to the possibility of migration to the cities or participation in the peasant settlement in the context of feudal expansion, the Reconquista in Spain or feudal German eastward expansion, then the peasants exerted no small amount of pressure on the feudal class. In the era of transition from feudalism to capitalism, the sharp religious contrasts were often associated with the emigration of larger groups and their resettlement in other territories.

The highest form of peasant class struggle were the peasant uprisings and peasant wars. In early feudalism, these were directed against the burdens and oppression resulting from feudalization, such as the Stellinga uprising in 841/42 and other uprisings in early medieval Europe [12: 212 f.] [31: 818 f.], or were aimed at preserving autonomy and independence from larger feudal lords, such as the struggles of the Steinger at the beginning of the 13th century [11]

During the 14th and 15th centuries, peasant uprisings took on a new quality, sometimes having a socio-religious character and combining with inner-city conflicts. They affected the peasants of large territories, such as the Flemish peasant revolt of 1323-1328 [44: 723 f.], the French peasant war of 1358, the so-called Jacquerie [25: 68 f.], the English peasant war of 1381 under the leadership of Wat Tyler and John Ball [21] or the Hussite revolutionary movement of 1419-1432 [28]. While peasant uprisings in France, England and Spain contributed to the consolidation of central power in the 15th century, fierce peasant class struggles in the German territories, especially the Bundschuh and Poor Conrad movements, prepared the way for the class conflicts of the early bourgeois revolution, which culminated in the German Peasants' War of 1524-1526.

In the epoch of transition from feudalism to capitalism that this heralded, violent peasant uprisings shook the feudal order in several European countries. The peasant movements had a decisive influence on the process of replacing the feudal with the capitalist social formation, as the peasants made up the bulk of the military fighters in the anti-feudal movements led by the bourgeoisie, which culminated in bourgeois revolutions. Major peasant revolts broke out in Austria (1596/98, 1626 and 1633), in the Bohemian lands (1680 and 1775) and in Poland. [49] [50] [51] [52] [57] [60] In Russia, major peasant wars in the 16th and 17th centuries, but especially in the years 1773 to 1775, shook feudal rule. [45] [50] In the countries of south-eastern Europe, the peasant wars also had the character of national movements against Turkish foreign rule. [50] [52]

The preparation, course and temporary success of the peasant uprisings represented great historical achievements by the masses in both organizational and military terms. However, the peasants alone could not overthrow the feudal order. The destruction of the feudal social formation was only possible as a result of the bourgeois revolution, so that the decisive perception of the historical hegemonic function by the bourgeoisie became the decisive question for the success of peasant uprisings in the epoch of the transition from feudalism to capitalism. [59]

Literature:

1 *Abel, W.*: Agrarkrisen und Agrarkonjunktur. Hamburg/Berlin (West) 1966; 2. *Ders.*: Massenarmut und Hungerkrisen im vorindustriellen Europa. Hamburg/Berlin (West) 1974; 3. *Ders.*: Geschichte der deutschen Landwirtschaft. Stuttgart 1967; 4. *Bader, K. S.*: Studien zur Rechtsgeschichte des deutschen mittelalterlichen Dorfes. Parts 1-3, 1957 to 1973; 5. *Bensing, M./Hoyer, S.*: Der deutsche

Peasants' War. Berlin 1975; 6. *Bentzien, U.*: Bauernarbeit im Feudalismus. Berlin 1980; 7. *Berthold, R.*, in: ZfG 1977 (XXV), H. 5, p. 556 ff.; 8. *Bessmertnyi, J. L.*: Feodalnaja derevnja i rynek v Zapadnoj Evrope XII-XIII vv. Moscow 1969; 9. *Dopsch, A.*: Die Wirtschaftsentwicklung der Karolingerzeit. 2 parts, Weimar 1962; 10. *Epperlein, S.*: Bauernbedrückung und Bauernwiderstand im hohen Mittelalter. Berlin 1960; 11. *Ders.* in: JWG 1962, T. I, p. 69 ff.; 12. *Ders.*: Herrschaft und Volk im karolingischen Imperium. Berlin 1969; 13. *Ders.* in: Die Rolle der Volksmassen in der Geschichte der vorkapitalistischen Gesellschaftsformationen. Berlin 1975, p. 210 ff.; 14. *Franz, G.*: Geschichte des deutschen Bauernstandes. Stuttgart 1976; 15. *Harnisch, H.*, in: JWG 1969, T. IV, p. 117 ff.; 16. *Heitz, G.*, in: WZR 1959/60 (8), p. 187 ff.; 17. *Ders.* in: Studia Historica in honorem Hans Kruus. Tallinn 1971, p. 124 ff.; 18. *Ders.* in: ZfG 1972 (XX), H. 1, p. 24 f.; 19. *Ders.* in: Studia Historica Oeconomicae. Vol. X, 1975, p. 45 ff.; 20. *Ders.* in: ZfG 1977 (XXV), H. 8, p. 910 ff.; 21. *Hilton, R. H.*, in: HZ, Beiheft 4 (NF) 1975, p. 31 ff.; 22. *Každan, A.*: Byzanz und seine Kultur, Berlin 1973; 23. *Köller, H./Töpfer, B.*: Frankreich. Vol. 1, Berlin 1973; 24. *Kötzschke, R.*: Allgemeine Wirtschaftsgeschichte des Mittelalters. Jena 1924; 25. *Konokotin, A. V.*, in: Iz istorii narodnyh vostanij protiv feodalizma i kolonializma. Ivanovo 1964, p. 68 ff.; 26. *Krzymowski, R.*: Geschichte der deutschen Landwirtschaft. Stuttgart 1951; 27. *Lütge, F.*: Geschichte der deutschen Agrarverfassung. Stuttgart 1967; 28. *Maček, J.*: The Hussite revolutionary movement. Berlin 1958; 29. *Moll, G.*, in: ZfG 1978 (XXVI), H. 1, p. 52 ff.; 30. *Mottek, H.*: Wirtschaftsgeschichte Deutschlands. Vol. 1-3, Berlin 1957-1974; 31. *Müller-Mertens, E.*, in: ZfG 1972 (XX), H. 7, p. 818 ff.; 32. *Ders.*: Karl der Große, Ludwig der Fromme und die Freien. Berlin 1963; 33. *Ders.* in: Probleme des frühen Mittelalters in archäologischer und historischer Sicht. Berlin 1966, p. 9 ff.; 34. *Münch, E.*, in: Probleme der Agrargeschichte des Feudalismus und Kapitalismus. Rostock 1977 (VII), p. 7 ff.; 35. *Nichtweiß, J.*: Das Bauernlegen in Mecklenburg. Berlin 1954; 36. *Njeussychin, A. I.*: Die Entstehung der abhängigen Bauernschaft als Klasse in Westeuropa. Berlin 1961; 37. *Novoselcev, A. P./Pašuto, V. T./Čerepnin, L. V.*: Puti razvitiya feodalizma. Moscow 1972; 38. *Ogrissek, R.*: Dorf und Flur in der DDR. Leipzig 1967; 39. *Peters, J.*, in: JWG 1967, T. III, p. 119 ff.; 40. *Poršnev, B. F.*, in: SW/GB 1952, H. 3, p. 440 ff.; 41. *Rosenberg, H.*: Problems of German social history. Göttingen 1969; 42. *Skaskin, S. D.*: Der Bauer in Westeuropa während der Epoche des Feudalismus. Berlin 1976; 43. *Töpfer, B./Engel, E.*: Vom staufischen Imperium zum Hausmachtkönigtum. Weimar 1976; 44. *Töpfer, B.*, in: ZfG 1978 (XXVI), H. 8, p. 713 ff.; 45. *Čerepnin, L. W.*, in: SW/GB 1974, H. 10, p. 1069 ff.; 46. *Vogler, G./Vetter, K.*: Preußen. Berlin 1970; 47. *Weber, M.*: Wirtschaftsgeschichte. Berlin 1923; 48. *Werkmüller, D.*: Über Aufkommen und Verbreitung der Weistümer, Berlin(West) 1972; 49. *Acta Universitatis Carolinae - Philosophica et historica* (Studia Historica XI). Prague 1974; 50. *Der Bauer im [524] Klassenkampf*. Berlin 1975; 51. *Der deutsche Bauernkrieg 1524/25*. Berlin 1977; 52. *Aus der Geschichte der ostmitteleuropäischen Bauernbewegungen im 16.-17. Jahrhundert*. Budapest 1977; 53. *history of the Sorbs*. Vol. 1, Bautzen 1977; 54. *History of the USSR from its beginnings to the present*. Berlin 1977; 55th *Handbook of German Economic and Social History*. Vol. 1-2, Stuttgart 1971-1976; 56. *Handwörterbuch der Sozialwissenschaften* Vol. 1-12. Stuttgart/Tübingen/Göttingen 1956-1965; 57. *Material z vedeckeho sympozia o charaktere feudalizmu na Slovensku v 16.-18. Storoci*, in: Historické studie XVII. Bratislava 1972; 58. *Die Slawen in Deutschland*. Berlin 1974; 59. *Studien zur vergleichenden Revolutionsgeschichte I 500-1917*. Berlin 1974; 60. *U povodu 400. godisnjice hrvatsko-slovenske seljacke bune*, in: Radovi 5, Zagreb 1973.

Gerhard Heitz

2.4.6. Property and class relations in the city

The property and class relations in the feudal city emerged with the development of the feudal social formation. Important preconditions were the separation of crafts from agriculture and the increase in agricultural production through the introduction of three-field farming, better soil cultivation and organized clearing of the forests. [MEW 27: 455] In addition, advances in

transportation led to an intensification of trade. The process of developing cities as centers of industrial production and trade began in Western Europe, first in Italy and France in the 8th/9th century, and a little later in England and the United Kingdom.

in the west of Germany. As the residence of the Byzantine Empire, Constantinople was already a large city of around 200,000-300,000 inhabitants at this time. Alexandria, Damascus and Baghdad were also large cities, and there were even larger cities in China and India. In Eastern Europe, Kiev, Chernigov, Smolensk, Polotsk and Novgorod were the oldest commercial and trading centers and maintained trade relations with many areas and countries, both in the West and the East. [11: 75 ff.] [38: Vol. 3, 360 ff.] [54: 81] [55: 22 ff.] [56: 27 ff., 67] Early urban settlements were of particular importance for the development of towns as settlements of long-distance traders, merchants and craftsmen, which developed in the style of fortified places of ecclesiastical and secular feudal lords, so that settlement complexes with feudal seats, merchant and craftsman settlements and markets emerged. [37: 68 ff., 105 ff.] [5: 14 f.] Favorable conditions were offered by former Roman cities such as Cologne, Trier, Worms, Augsburg and others, as well as trading emporia such as Quenrovik, Dorestad and Haithabu. [54: 87] [12: 27 ff.] Long-distance traders and individual merchants were free people here who enjoyed royal protection and traded mainly in luxury goods: Wines, silver, furs, cloth, jewelry and spices. They organized themselves into caravans and cooperative societies. Feudal lords or manorial lords (e.g. monasteries) and peasants also acted as merchants. [38: 46 ff.] [48: 21/11] [54: 35 ff.] The class of professional merchants developed from Frankish, Saxon, Frisian and Jewish merchants.

In numerous early urban settlements - also in those in the West Slavic settlement area [23: 34 ff.] [24: 187 ff.] [48: 25] - craftsmen were resident, but often only temporarily as itinerant craftsmen. From the peasant population experienced in commercial activity, unfree frontier craftsmen had formed (blacksmiths, weavers, carpenters, potters, etc.). According to the unrealized building plan of the monastery **[525] of St. Gallen** from 820, shoemakers, saddlers, sword sweepers, shield makers, tanners, gold and iron smiths and walkers were to be housed in a craftsmen's house; a bakery, a brewery and a copper workshop were also planned. [27: Fig. 56; 21] In the 9th century, weaving spread in the Lake Constance region as well as in Münster and Westphalia, later in Lower Saxony, but also in southern France and in Italian and English (wool trading) towns. Alongside trade and transportation, the simple production of goods by individual craftsmen became the economic basis of the developing urban system.

The markets mentioned in the Carolingian capitularies also served local small trade. Through further privileges, the network of market places became ever closer. Markets were established where the goods of merchants, craftsmen and farmers were exchanged, sold or bought at certain locations and at regular times. This was favorable in the former Roman towns, at royal palaces, earl's castles, bishop's seats, monasteries and feudal courts, as there was a settled population here. In addition, church festivals and the veneration of saints and relics brought many people together in one place. The weekly markets (local markets) were particularly important for the development of the town, as they regulated the exchange of commercial and agricultural products between the nascent town and its rural surroundings. Long-distance trade alone was not able to bring about urban development; the first annual markets in Central Europe are recorded in sources from the 10th century. The town and its surroundings came into very close interaction through market relations. However, this also gave rise to the urban-rural divide that developed in Germany from the 9th to the 18th century.

12th century and "the whole economic history of society is summed up in the movement of this opposition". [MEW 23: 373] It was based on the economic superiority of the cities, in which the productive forces developed faster than in the countryside. With the existence of independent specialized craft production, long-distance and local trade, markets, mints and monetary transactions, the decisive socio-economic preconditions for urban development were in place.

Trading emporia and royal palaces did not become towns if they lacked a permanent connection to the surrounding area, as in the case of Ingelheim, Werla and Tilleda. Magdeburg and Regensburg were already early towns before they became palatinates, and in Aachen and Frankfurt am Main they formed the old urban core in the process of becoming towns. [49: 85] The episcopal "cities" were closely linked to the emergence of the feudal states of Western Europe. With their three

elements - bishop's castle and cathedral, church and monastery wreath, merchants' and craftsmen's settlement and market - they reflect the first phase of "urban development" in Germany, which was predominantly under feudal initiative. [Total population figures have not been handed down for them, but they will not have reached the size of Prague in the 10th century or even that of the English cities (1086 Domesday Book: London 12,000, York 8,000, Norwich 5,000). [11: Vol. 1, 109] The early urban forms were known in all Central and Eastern European countries, with only minor variations.

The beginning of the era of fully unfolded feudalism around the middle of the 11th century was characterized by both the increased expansion of the peasantry and the constitution of the bourgeoisie in urban communities. [46: 39 ff.] [54: 91 ff.] In numerous European cities, this was promoted in connection with the revolutionary communal movement against feudal city lords (Worms, Cologne, Trier, Cambrai, Le Mans, Laon, etc.). [12: 105 ff.] [29: vol. 1, 65 ff.] Several times, these conflicts led to the formation of oath associations (*conjuraciones*) with members from all classes of the urban population. Sometimes the middle-class

[526] emancipation struggle over decades, whereby the citizens also used money as a weapon to acquire self-government rights. The revolutionary character of the communal movement resulted from the fact that "without breaking the feudal system as a whole, feudal exploitation was eliminated in the urban area and non-feudal forms of ownership of the means of production and the principle of personal freedom were established. Decisive for this evaluation of the communal movement are therefore primarily its results, not so much the forms of its course." [42: 8] A late phase of this movement in German cities lasted until the beginning of the

It began in the 14th century and was then already accompanied by conflicts within the citizenry and population. In Eastern European cities, too, the population fought for independence and freedom. [15: 208 ff.] [28: 42 ff.] [57: 279 ff.] [58: Vol. 3, 368]

However, with the repeated appearance of the communal movement, the significance of the 11th century for urban development. Trade between Italian cities (Venice, Genoa, Pisa, Amalfi) and the Near East began to develop in connection with the Crusades and had an impact on Western and Central Europe. The Flemish cloth trade experienced a remarkable boom and promoted urban development (Bruges, Ghent, etc.). [22: vol. 3, 55 ff.] The number of mints increased, with Cologne and Goslar being followed by Regensburg, Mainz, Worms, Speyer, Liège, Deventer, Dortmund, Würzburg, Strasbourg and others, reflecting the growing role of money as a measure of value in market and commodity transactions. [46: 41] This was also made clear by the increase in market settlements: in Hamburg, Osnabrück, Minden, Münster, Paderborn, Hildesheim, Goslar, Quedlinburg, Halberstadt, Stade, Bardowiek and Brunswick, market settlements with a market parish church were sometimes formed next to old, single-line merchant settlements. [12: 77] [44: 43 ff.] In addition, *towns began to be founded*, initially in Flanders and England, then in Germany in the 12th century, on the one hand in the course of the internal expansion of the country (e.g. Freiburg im Breisgau around 1120), and on the other hand as a result of the external expansion of the country in connection with the eastward expansion (e.g. Leipzig around 1165). [24: 270 ff.] [54: 62 ff.] There were also many new foundations in Poland, Bohemia and Hungary. [49: 333 ff., 439 ff., 471 ff., 527 ff.] But here, too, the founding of towns usually meant linking up with early urban developments (suburbs, trading settlements); however, it took place as a conscious process and with relative regularity. [3: 333 ff.] [5: 24 ff.] Finally, the word "stat" appeared (in the Annolied 1080-1100) and became generally accepted in the 12th century. [22: vol. 1, 95 ff.]

Oath associations played an important, but not the only, role in the development of the town community. Other cooperative institutions (older merchants' guilds, popular assemblies such as Ding and Burspraken, neighborhoods, parishes, aldermen's colleges) also contributed. In founded towns, the formation of the municipality took place in connection with the founding process. Its constitution was a political process: everyone swore an oath of mutual aid and loyalty to the community, and undertook to fortify and defend the town. However, a distinction must be made between the municipality as a

The town community was a legally competent person (*universitas civium; universi burgenses civitatis*), which issued documents, kept seals and offered its members legal protection, and the community of inhabitants, which was politically and socially differentiated in many ways and underwent various phases of development. [12: 106] [22: vol. 2, 55 ff.] [56: 8 ff.] The municipality experienced its revolutionary period in the commune movement.

The city under feudalism was socio-economically characterized by the existence [527] of simple commodity production, commodity-money relations and a producing, trading bourgeoisie that owned land in the city and was largely free of feudal ties. The legal expression of these relationships was the town charter. [21: 99] [38: 332 ff.] It differed from rural law. Its legal norms were originally customary law handed down orally; in addition, there were privileges granted by the city authorities. From the 12th century onwards, it was laid down in written legal statutes (handfests, wills, statutes, town letters). They contained the freedoms of the burghers, civil and criminal law provisions, e.g. on free inheritance law, the law of obligations, the use of communal facilities and the power of disposal of house and land ownership. Town register entries also had legal probative force. The area of application of the town charter was the walled city area or the soft-land area, which could, however, vary in size. The development of founding towns and the vital, uninterrupted influx of new citizens were intensified by the principle of "city air makes you free", which politically, legally and ideologically promoted the development of towns and the bourgeoisie and social progress. [20: Preface] [45: 5 ff.] Various families of city law (e.g. Cologne, Magdeburg, Lübisches Stadtrecht) emerged during the city foundation period.

The towns differed considerably in terms of political status and legal situation, which had an impact on citizens and inhabitants. In the majority of English towns, the king was the lord of the town, from whom they received administrative rights and jurisdiction (free letters) - usually in return for money. Many French municipalities enjoyed a high degree of political independence, while the towns in Poland and Rus' were in some cases more dependent on the feudal system. In Germany, the *free imperial cities* (Worms, Speyer, Cologne, Mainz, Constance, Strasbourg and others) and the *imperial cities* established on royal estates (Nuremberg, Aachen, Dortmund, Goslar and others, a total of around 80 in southern, western and central Germany) were almost completely removed from feudal city rule. Some of these lost their imperial city status (e.g. Altenburg, Chemnitz, Zwickau) to the territorial princes, while some of the sovereign cities were able to acquire imperial city status (Lübeck, Vienna). The most important advantages included extensive autonomy and limited service and tax obligations. *Sovereign cities* had more or less limited self-government. Changes to city law required the consent of the sovereign, who could intervene arbitrarily in the constitutional, economic and financial systems, and military sovereignty was often restricted. In addition to regular annual taxes, additional monetary levies were demanded. Pledging towns to other feudal princes was a common practice. On the other hand, the constant need for money on the part of the sovereigns made it possible to acquire privileges. *Manorial or mediate towns* had hardly any effective rights of self-government, were under constant control and had no council constitution or jurisdiction, whereas imperial towns and sovereign towns could have lower and higher jurisdiction. Their inhabitants were treated like subjects, similar to peasants, and were obliged to pay taxes in money and in kind as well as to perform labor.

In the 13th century, town councils were formed from associations of *meliores* (Dortmund, Cologne), town jurors (Freiberg, Altenburg) and aldermen (Flanders, Münster, Magdeburg) as well as under the influence of the Italian consulate (1232 Regensburg, 1244 Mainz, 1256 Würzburg, 1270 Leipzig), which were initially sometimes elected by the town community, but usually only by citizens with full rights or had the right to appoint their own members. In many cases, the eligibility to be a councillor was restricted (the prerequisites for this [528] were marital and German birth, a certain level of wealth, land ownership, etc.). [4: 451 ff.] [38: 296] Two functions can be distinguished in the relationship between the citizenry and the council: On the one hand, the town council represented the interests of all inhabitants in the struggle against the feudal town lord; on the other hand, it was the organ of rule and oppression of the burghers or especially the bourgeois upper class vis-à-vis the rest of the inhabitants, with town law and judicial sovereignty as

instruments of power were applied. Thus the Council exercised quasi-governmental functions within the framework of its rights of self-government both internally and externally. [5: 38 ff.]

In confrontation with feudal power and exploitation policies, the communes joined together to form city alliances. In Italy, the Veronese League (1164) and later the Lombard League (1167) were formed to defend against Hohenstaufen claims to power under the emperors Frederick I (1176 Battle of Legnano) and Frederick II (1198 Lombard League). In Switzerland, the urban and rural communities formed a confederation (1291). In the 13th and 14th centuries, many German confederations of towns were formed: the great Rhenish League (1254), the Städtehanse, the League of Saxon Towns, the Upper Lusatian League of Six Towns and many others, which often only united two, three or sometimes four towns. Their union was the result of feudal fragmentation, road insecurity (robber barony) and the special economic and political interests of the towns involved. The town federations were instruments of power for the bourgeois upper classes against the feudal powers that threatened them (princes, nobility), but they also developed an internal function when it came to suppressing joint opposition movements of the urban population. In France, England and Spain, due to the greater dependence of the cities on the crown, there was not such a frequent formation of city federations with internal and external functions as in Germany. [35: 183 ff.] [39: 75 ff.] [51: 149 ff., 695 ff.] The further development of the towns and the crafts were closely interrelated. Unfree and free craftsmen found a greater degree of personal freedom, better production and sales conditions and more favorable conditions for the acquisition of means of production in the simple production of goods as the basis of the urban economy. As a result, many peasants, especially those with a secondary trade, moved to the cities, while those who remained in agriculture, encouraged by the relative betterment of the rural population in the 12th/13th century, now acquired more artisanal and commercial products and developed greater needs in view of the urban example. The markets in particular stimulated the further development of the simple production of goods by both rural and urban producers.

The means of production of the master craftsmen were usually their property: tools, raw and auxiliary materials as well as workshops, which were usually located in a house together with their home. However, the master craftsman's property (house, workshop) could also be rented or encumbered with an annuity belonging to merchants, feudal lords, monasteries or the town. Larger production facilities (fulling mills, bleaching) and sales facilities (meat and shoe shops) were owned either by the guilds or the town council. Arable land, meadows and gardens in and outside the town were often owned by craftsmen. Chattels such as household goods, clothing and luxury items were comparatively more modest than those owned by merchants. Town plans, views and floor plans prove the difference in size and furnishings between the houses and properties of craftsmen and merchants. [26: 24 ff.]

In Europe, guilds existed earliest in Italy (10th/11th century), later in France and Germany (1099 weavers/Mainz, 1106 fishermen/Worms, 1128 shoemakers/[529]Würzburg, 1149 bedding makers/Cologne). While support from the city authorities mainly played a role in the formation of the guilds, the cooperative element, together with the main economic function of the guilds, had a lasting effect on their development. In their first phase of development (up to the 14th century), the guilds stimulated progress (promotion of the division of labor, quality production, technical achievements, transfer of experience), while in the second phase, isolation, stagnation and ossification of the guild system prevailed. From the 13th/14th century onwards, economic and social differentiation deepened in and among the guilds. In addition, the antagonism between masters and journeymen broke out openly. Early forms of publishing and manufacture accelerated the process of differentiation in the crafts and guilds. [37: 170 ff.] [47: 141 ff.]

There were different variations in the relationship between guilds and the city government. There were cities in which guilds were banned (Nuremberg), others which strictly supervised them (merchant cities), and others which granted them urban economic functions (market and trade supervision) and their own jurisdiction. In some municipalities, they became the basis of the

constitutional organization, whereby every citizen (whether craftsman or merchant) had to belong to a political guild (Strasbourg 1332, Cologne 1396). The number of trade guilds was not always an expression of the commercial diversity in the cities. In Frankfurt/M. in 1355, for example, there were only 14 guilds, but 1,600 different professional titles. [5: 27 ff.] In Eastern European cities, craftsmanship also reached a high level of development, and guild-like organizations were formed here as well. [11: 87] [14: 157 ff.] [21: 545]

Merchants' guilds, which emerged from mutual support on trading trips, began to monopolize the local market in a similar way to the guilds, but were primarily interested in long-distance trade. In addition, they began to specialize more strongly according to the range of goods (e.g. the garment tailors) and regional trading interests (e.g. the Haase); wholesale and retail trade became more sharply differentiated (merchants, grocers, tradesmen). Trade fairs gained "international" significance. [35: 45 ff.] [37: 180 ff.] [39: 28 ff.]

Commonalities between merchants/guilds and craftsmen/guilds were a common struggle against feudal city lords during the communal movement; common interest in eliminating foreign competition on the local market; uniform legal status (city law); common ideological positions and cultural interests as city citizens [2: 202]; however, economic and social differences as well as political contrasts predominated: firstly, growing economic dependence of the craftsmen on the merchants; secondly, different economic and political positions, e.g. in the import and export of goods, in pricing, in economic relations with other cities, and in the establishment of a common market. secondly, different economic and political positions, e.g. with regard to the import and export of goods, pricing, economic relations with other cities, etc. etc.; thirdly, merchants had more favorable conditions for the accumulation of property and wealth (real estate: houses and warehouses, larger and often several plots of land in and outside the city, ownership of production facilities such as mills, breweries; movables: larger stocks of goods, more household goods, clothing, jewelry, books, means of transport; also pensions and interest payments, whereby land and pension holdings in the countryside were used as feudal property) [18: 331 ff. Fourthly, while merchants played a leading role in the city government, master craftsmen had no or only modest co-determination rights. This is why the definition of the urban bourgeoisie as a secondary class in feudalism proposed by some GDR historians is controversial. [2: 202 f.] [18: 336 f.] [42 : 10] [45: 65]

The urban population was also involved in the population growth. Whereas in the [530] 8th/9th century there were only around 60-70 long-distance trading centers, in the 11th century around 200-300 market towns between the Rhine and the Elbe, in the 14th century there were around 4,000 towns within the borders of Germany at the time, of which 3,780 were small towns (up to 2,000 inhabitants), 200 were medium-sized towns (up to 10,000 inhabitants) and 20 were large towns (over 10,000 inhabitants). [22: Vol. 1, 408 f.] Urban regions (southwest Germany, Saxony) were contrasted with less urban regions (Bavaria, Mecklenburg). Among the most populous European cities in the 14th century were Paris (100,000-200,000 inhabitants, of which approx. 40,000 were craftsmen), Florence (90,000), Venice (90,000), Bruges (90,000), London (40,000) and in Eastern Europe Novgorod (30,000); the largest German city was Cologne (50,000), followed by Strasbourg, Nuremberg, Augsburg, Vienna, Lübeck, Magdeburg, but also cities such as Prague and Krakow. However, these population figures are mostly based on estimates and comparative values. The majority of European and especially German urban communities were made up of small and dwarf towns, which nevertheless played an important economic role as the center of surrounding villages and rural districts.

At the top of the urban social structure was the *bourgeois upper class* (patriciate, aldermen), which could include nobles (Italy, France, Spain) or ministerials as well as long-distance merchants, ship owners, money changers, cloth merchants and others. The *middle classes* (non-patrician merchants, master craftsmen, bourgeois intelligentsia, farmers, gardeners and winegrowers) and the *plebeian classes* (productive: impoverished craftsmen, journeymen, day laborers, farmhands, maidservants; unproductive: beggars, jugglers, clerks, poor people, vagabonds) were more strongly differentiated. In the 15th/16th century, this part of the town's population grew to over 50% of the population.

There were also city dwellers with special status: clergy, nobles, Jews, pale burghers, guests. [5: 34 ff.] [17: 126 ff.] [35: 44 ff.]

This social differentiation resulted in a variety of inner-city disputes between the councillor families and the bourgeois opposition - often involving plebeian classes - which were still intertwined with the communal movements in the 13th century and reached their peak in the 14th and first third of the 15th century, with the bourgeois opposition gaining a partial share of the city government. The conflicts repeatedly produced the first evidence of civic historiography (town chronicles). The differences between master craftsmen and journeymen also led to open battles. [5: 46 ff] [17: 197 ff] [39: 151 ff].

The first early capitalist forms of production developed as early as the 14th century in Italian, Flemish and individual German cities (Strasbourg, Ulm), but they only emerged on a larger scale in the period of decline of feudalism, which began at the end of the 15th century, especially with the renewed upswing in mining, which was now operated using capitalist production methods based on technical advances. [53: 10 ff.] This was associated with the founding of new towns - Schneeberg, Annaberg, Marienberg, Joachimsthal - with rapid growth (Joachimsthal, founded in 1515, 1534 = 18,000 inhabitants), which, however, shrank again after the boom. Mining inspired the formation of powerful corporations, most of which were owned by townspeople. The early capitalist development also influenced the simple production of goods by craftsmen. Craftsmen became increasingly specialized; trades and guilds were subject to even deeper social differentiation. New and improved technical methods increased their production. Merchant capital entered production in the form of publishing (e.g. in the metal and textile trades) and manufacturing. In new branches of industry, such as book printing, capitalist forms of production and sales developed particularly rapidly (Nuremberg, Leipzig). Corporations emerged as new forms of enterprise that combined trading and financial transactions with participation in production, for example in Augsburg, Nuremberg, Strasbourg, Ravensburg and Leipzig. They in turn promoted the development of capital markets and the stock exchange business. Trade in commodities, including raw materials, increased further and intensified the transportation system. The feudal lords in particular profited from this capitalist development and extracted huge sums of money from the economy. Although this and their regulatory policies were able to inhibit early capitalism, they could not stop it. [53: 25 f.]

Changes in the urban social structure were inevitable: the plebeian classes in the large and medium-sized cities grew to over 50-60% of the population, and the contrasts between rich and poor also deepened among the middle classes. The process of the original accumulation of capital was already beginning to have an effect in the cities: on the one hand, the formation of an early capitalist entrepreneurship, which increasingly influenced city politics, and on the other, the growth of the early proletariat and urban poverty. The general population growth promoted fluctuation and mobility as well as social contrasts in the cities. In addition to the disputes between the commercial and manufacturing bourgeoisie and the princes over the freedom of capitalist entrepreneurship from regal rule, urban uprisings became more frequent even before the Reformation, eventually leading to a broad popular reform movement. The Peasants' War also saw the urban movements reach a climax, especially where they were directly linked to the peasants' struggle. However, the urban bourgeoisie did not fulfill its objective historical leadership role in the struggle against feudalism. [7: 128 ff.] [32: 84 ff.] [53: 290 ff.]

Even after the early bourgeois revolution, the inner-city conflicts did not subside: alongside religious and political movements (1593 Leipzig) and struggles of the bourgeois opposition with the participation of plebeian forces against the council oligarchy (1556 Greifswald, 1558 Stralsund, 1583 Wismar), the subordination policy of the princely territorial state, which had already begun in the 15th century, became increasingly oppressive. Its aim was to restrict or eliminate the autonomy of the burghers, but this led to serious conflicts (Duisburg in 1555, Amöneburg in 1578, Brunswick in 1601), which affected the economy, trade, culture and ideology of the bourgeoisie. While the imperial cities were able to maintain their self-government,

Although their forms often became rigid, autonomy was replaced by coercive state power in sovereign cities, especially under the influence of territorial absolutist developments (legislation, judicial and police power, taxation, economic regulation) Narrow limits were placed on economic development and the citizens and inhabitants were degraded to subjects. Frequent wars severely damaged the economy, population, building substance and cultural life of numerous cities. [6: 34 ff] [31: 27 ff] [41: 11 ff].

The nation states that had been emerging in England, France and Spain since the end of the 15th century and the associated state centralization had a stronger impact on the position of the cities than in Germany and Italy. The development of manufacturing capitalism and national economic policy tied the cities more closely to absolutist rule at the cost of promoting bourgeois-commercial and industrial interests, but also largely restricted the scope of their autonomy. The socio-economic and political contradictions associated with this development led to uprisings and social conflicts in these countries, in which the cities increasingly became centers of struggle and their inhabitants took sides in different ways: for example, during the civil wars in France in the 16th century, in Spain in the uprising of the Comuneros and in the Dutch Revolt. As the seeds of capitalist production also developed in the countries of Eastern Europe, social conflicts did not fail to arise here either. The geographical discoveries and their consequences had different effects on the trade relations of large Western European cities in particular, with former metropolises losing importance (Venice) and others rising (Lisbon, Antwerp). [11: 82 ff.] [58: vol. 4, 108 ff.; 122; 236 ff.; 291 ff.; 360 ff.].

In the 17th and 18th centuries, German cities participated in the expansion of the internal and external markets for commercial goods in different ways. Where Huguenots, Reformed and other émigrés immigrated, there was usually an economic upswing. Likewise, some cities and branches of industry benefited from the upswing in productive forces, the natural sciences, the increase in labor productivity and the intensification of international and overseas trade (cf. the trade fair cities of Leipzig and Frankfurt/Main, as well as Hamburg) after the end of the Thirty Years' War. New branches of production developed, while old ones experienced a strong upswing under changed conditions (cotton, silk and canvas production, production of war material). Manufactories were founded more and more frequently, and in some areas they spread more to the countryside, where decentralized manufacturing (publishing) predominated. The founders of manufactories were mostly merchants, fewer master craftsmen, often exiles who introduced new trades (velvet, wallpaper, button making, etc.). In the 18th century, more state-owned manufactories were founded; production specializations in silk, jewelry, textiles, porcelain and weapons manufacturing also increased. Penitentiaries and workhouses, whose numbers increased and whose inmates were exploited inhumanely, were often used in the service of manufactory production. [37: 263 ff.] [40: 98 ff.] [15: 24 ff.]

The manufacturing and trading bourgeoisie in the centralized nation states played a major role in the development of manufacturing capitalist industrial centers with cities as their respective centers, for example in France around Paris, but also in the north of the country (Rouen, Amiens, Reims, Châlons), in the west (Nantes, Bordeaux) and in the south (Toulouse, Marseille, Lyon); similarly in England with London, Norwich, Gloucester, Bristol and Cheffield. Birmingham, Cheffield and Manchester were only now growing from villages into towns. In some cases, however, the craft trades also continued to develop a great production capacity, as textiles were produced in large quantities by craftsmen in both French and English cities. The service trades also played an important role here. [48: 67, 77, I] [58: vol. 5, 106 ff., 523 ff., 588 ff.].

The Thirty Years' War accelerated the decline of urban crafts in Germany. In addition, it was no longer able to withstand the competition from Western European goods. In many cases, craftsmen and guilds resisted new technology and working methods, even though individual master craftsmen (locksmiths, clockmakers, carpenters, etc.) were involved in the invention of new tools, simple machines and improved production technology. The further

The situation in the guilds was complicated by the fragmentation of simple goods production into urban and rural trades, guild and non-guild trades and the continuing division of labour in individual trades. Interventions by the territorial state only helped to stabilize them. Despite restrictive bans (1718 Prussia, 1767 Saxony), the rural trades also continued to develop and sometimes became strong competitors for the urban trades. However, the rural trades were hardly able to survive without the mediation of merchants and manufacturers in the cities. [37: 98 ff., 282 ff.]

In the era of the decline of feudalism, the development of manufacturing capitalism and the first bourgeois revolutions, there was also an increase in urban popular movements. In England, they were part of the overall national revolutionary movement. In France, popular uprisings at the time of the Thirty Years' War gripped many cities (Lyon, Dijon, Aix-en-Provence, Bordeaux, Moulins), often accompanied by peasant movements and thus supporting the citizens in their struggle against the growing policy of oppression and taxation. In the second half of the

The uprisings became more frequent again in the 17th century. In Austria, on the other hand, the peasants needed the support of urban forces and bases (Linz, Wels, Steyr) in 1626 in order to achieve partial successes. In the Dutch cities of Brielle, Middelburg, Groningen, Rotterdam and Amsterdam there were also uprisings. Here, oppressive taxes and demands for self-government were also the main complaints, with the rebels also taking action against the regime of the bourgeoisie. In addition to Moscow, the urban uprisings in Eastern Europe also affected some cities in the south and north of Russia, which also received peasant support [58: vol. 5, 93, 125, 174].

The movements of bourgeois opposition with the participation of the plebeian classes against the councils also continued in the German cities of the 17th and 18th centuries (1623 Halle, 1629/30 Magdeburg, 1681-1696 Bremen, 1685 Cologne, 1699 Hamburg, 1750 Ratingen, 1763 Rostock, 1774 Wismar, 1776-1787 Ulm). While the Kipper and Wipper riots (Cologne, Frankfurt a. Main, Halle, Magdeburg) particularly involved the petty bourgeois and plebeian classes, in the 18th century the bourgeois opposition emerged as plaintiffs in the numerous disputes with the council oligarchy that took the form of legal disputes. Some of the unrest had different causes to those in the 14th/15th century. The artisan opposition often acted independently. [7: 16 ff.] [41: 20 ff.]

In addition, the movements of journeymen, miners and factory workers intensified in all European countries. The process of proletarianization was already well advanced among journeymen in various trades. Arrests, lockouts and expulsions were countermeasures to journeymen's strikes and walkouts. The proletarian element predominated in the unrest of the miners (1711 Schneeberg, 1728 Freiberg) and salt workers (1700 Schwäbisch-Hall). There were joint actions between journeymen and factory workers in Hamburg in 1753. There were movements of the manufactory proletariat in Berlin (1758, 1775) and Nowawes (near Potsdam in 1785). The class struggles of journeymen, factory workers and miners brought new elements into the urban popular movements of late feudalism. In several cases, the territorial state reacted with military action against the insurgents. Its policy of subordinating the cities was continued, and in many cases inner-city disputes provided an opportunity to complete the process of subordination by exploiting the disputes (Magdeburg 1666, Brunswick 1671). Sometimes the territorial princes entered into a temporary alliance with the bourgeois opposition or the lower classes in order to be able to break council rule and autonomy more easily, while the latter succumbed to the illusion that the princes would improve their political and social situation. [41: 31 ff.]

[534] While the imperial cities suffered particularly from the decline of central power and national fragmentation, only some of the sovereign cities received support, especially the residence, capital, fortress, excise and exile cities. However, their economic, political and cultural life was completely subjected to territorial state regulation. The tax system hindered the development of trade and commerce. The powers of the town councils were limited to administrative activities; they were executive bodies of the territorial state. Garrisons were set up in numerous towns. The military and police took over the

decisive power and regulatory functions. In the territorial states where princely absolutism developed (Prussia), it also had an impact on the constitutional life of the cities. The "deformed absolutism" in comparison to Western Europe led to the "crippled development of the German bourgeois class" [MEW 4: 346], which was too weak and too fragmented to be able to make a decisive contribution - as in France - to the formation of a strong absolutist central power as a prerequisite for the unified bourgeois nation state.

Literature:

- 1 *Berthold, B.*: Soziale Differenzierung und innerstädtische Auseinandersetzungen in Köln im 13. Jahrhundert, in: Stadt und Städtebürgertum in der deutschen Geschichte des 13. Jahrhunderts. Berlin 1976, p. 229 ff.; 2. *this./Engel, E./Laube, A.*: in: ZfG 1973, H. 2, p. 196 ff.; 3. *Blaschke, K.-H.*, in: Festschrift für Walter Schlesinger. Vol. 1, Cologne/Vienna 1973, p. 333 ff.; 4. *Conrad, H.*: Deutsche Rechts- geschichte. Vol. 1, Karlsruhe 1954; 5. *Czok, K.*: Die Stadt. Leipzig/Jena/Berlin 1969; 6. *Ders.* in: Jahr- buch für die Geschichte der Stadt Leipzig. Leipzig 1977, p. 123 ff.; 7. *Ders.* in: Das Städtewesen Mitteleuropas im 17. und 18. Jahrhundert. Linz/Danube 1978, p. 23 ff.; 8. *Ders.* in: 450 Jahre Refor-
 mation. Berlin 1967, p. 128 ff.; 9. *Ders.* in: ZfG 1962, H. 3, p. 637 ff.; 10. *Ders.* in: WZKMU-GSR 1975, H. 1, p. 53 ff.; 11. *Donnert, E.*: Rußland an der Schwelle der Neuzeit. Berlin 1972; 12. *Ennen, E.*: Die europäische Stadt des Mittelalters. Göttingen 1975; 13. *Epperlein, S.*, in: ZfG 1972, H. 6, p. 695 ff.; 14. *Ders.* in: JWG 1977, T. II. p. 157 ff.; 15. *Ders.* in: JWG 1977, T. IV, p. 207 ff.; 16. *Forberger, R.*: Die Manufaktur in Sachsen vom Ende des 16. bis zum Anfang des 19. Jahrhunderts. Berlin 1958; 17. *Fritte, K.*: Am Wendepunkt der Haase. Berlin 1967; 18. *Ders.* in: ZfG 1974, II. 3, p. 331 ff.; 19. *Ders.* in: Abhandlungen zur Handels- und Sozialgeschichte. Vol. XVI, Weimar 1976; 20. *Gericke, H.*: "Stadtluft macht frei". Halle 1968 (Habil.-Schrift); 21. *Gruber, K.*: Die Gestalt der deut- schen Stadt. Munich 1952; 22. *Haase, C.*: Die Stadt des Mittelalters. Vol. I-III, Darmstadt 1969 ff;
 23 *Hensel, W.*: Anfänge der Stadt bei den Westslawen. Bautzen 1967; 24 *Herrmann, J.*: Die Slawen in Deutschland. 3rd ed., Berlin 1974; 25th *Herzog, E.*: Die ottonische Stadt. Berlin(West) 1964; 26. *Jacob, F.*: Die Görlitzer bürgerliche Hausanlage der Spätgotik und Frührenaissance. Görlitz 1972; 27. *Junghanns, K.*: Die deutsche Stadt im Frühfeudalismus. Berlin 1959; 28. *Kashdan, A. P.*: Byzantium and its culture. Berlin 1973; 29. *Köller, H./Töpfer, B.*: Frankreich, Bd. 1-2, Berlin 1976; 30. *Kulischer, J.*: Allgemeine Wirtschaftsgeschichte des Mittelalters und der Neuzeit. Bd. 1, Berlin 1954; 31. *Langer, H.*: Stralsund 1600-1630. Weimar 1970; 32. *Laube, A.*, in: HZ 1975, Beiheft 4, NF. p. 84 ff.; 33. *Levickij, J. A.*: Goroda i gorodskoe remeslo v Anglii v X-XII vv. Moscow/Leningrad 1960; 34. *Mau- ersberg, H.*: Wirtschafts- und Sozialgeschichte zentraluropäischer Städte in neuerer Zeit. Göttingen 1960; 35. *Mägdefrau, W.*: Der Thüringer Städtebund im Mittelalter. Weimar 1977; 36. *Ders.* in: JWG 1976, T. III, p. 119 ff.; 37. *Mottek, H.*: Wirtschaftsgeschichte Deutschlands. Vol. 1, Berlin 1964; 38. *Planitz, H.*: Die deutsche Stadt [535] im Mittelalter. 3rd ed., Weimar 1973; 39. *Schildhauer, J.*: Die Haase. Berlin 1974; 40. *Schilfert, G.*: Deutschland 1648-1789. Berlin 1975; 41. *Schultz, H.*: Soziale und politische Auseinandersetzungen in Rostock im 18. Jahrhundert. Weimar 1974; 42. *Töpfer, B.*, in: Stadt und Städtebürgertum in der deutschen Geschichte des 13. Jahrhunderts. Berlin 1976, p. 8 ff., p. 13 ff.; 43. *Ders.* JWG 1973, T. IV, p. 235 ff.; 44. *Stoob, H.*: Forschungen zum Städtewesen in Europa. Vol. 1. Cologne/Vienna 1970; 45 *Werner, E.*: Stadtluft macht frei. Berlin 1976; 46. *Ders.* in: Zwischen Canossa und Worms. Berlin 1973; 47. *Zoellner, K.-P.*, in: Neue Hansische Studien. Berlin 1970; 48 *Atlas zur Geschichte*. Bd. 1, Gotha/Leipzig 1973; 49. *Die deutsche Ostsiedlung des Mittelalters als Problem der europäischen Geschichte* (Vorträge und Forschungen XVIII). Sigmaringen 1975; 50. *gorod (keyword)*, in: Sovetskaja istoričeskaja enciklopedija. Vol. 4, Moscow 1963, p. 544 ff.; 51. *Hansische Studien III. Bürgertum - Handelskapital - Städtebünde* (Abhdl. zur Handels- und Sozial- geschichte, Vol. XV). Weimar 1975; 52. *Haupttendenzen der europäischen Stadtgeschichte im 14. und
 15th century*. T. I/II, Magdeburg 1974; 53. *illustrated history of the German early bourgeois revolution*. Berlin 1974; 54. *Klassenkampf - Tradition - Sozialismus*. Berlin 1974; 55th *Yearbook for the History of Feudalism*. Vol. 1, Berlin 1977, p. 11 ff.; 56. *Stadtgemeinde und Städtebürgertum*

im Feudalismus. Magdeburg 1976; 57 *Stadt und Städtebürgertum im Feudalismus*, in: WZ Jena, 1977/3;
58th *World History in Ten Volumes*. Vol. 3, 4, 5, Berlin 1963/66. *Karl Czok*

2.4.7. Feudal state and economy

The availability of economic resources as sources of feudal rents, taxes, etc. was a decisive prerequisite for the economic strength and political power of the ruling class throughout the feudal epoch. The establishment and maintenance of the forms of state organization typical of the individual epochs of feudal society (early feudal empires, centralized monarchies, territorial dominions, estates, absolutist states) required considerable expenditure. The feudal powers could only pay for these if they had a minimum level of income. The feudal upper classes therefore endeavored to ensure the continuous receipt of this income and to increase it. [87: 297 ff., 606 ff.] The possibilities and limits of corresponding economic policy activities were just as dependent on the level and quality of income and expenditure as on the respective degree of development of economic and social conditions.

In *early feudalism*, when great empires emerged in Western, Northern and Eastern Europe between the 8th and 10th centuries and, after their collapse, smaller feudal states developed, the various feudal rulers in regions with an initially absolutely dominant economy in kind were almost exclusively dependent on income in kind, which they derived from the land directly under their control as the most important means of production in feudal society. In Scandinavia [91: vol. 9, 434 f.] and the Frankish Empire [461], for example, the royal estates, and in Kievan Rus' [93: 188 ff.] the estates of the grand princes formed the most important material support for the respective rulers. They attempted to establish the most important material support of the respective rulers by issuing lists of possessions and benefits, such as the "Capitulare de vil- lis" [1: 67 f.] [71: 1 ff.] [81] or the "Russkaja Pravda" [26:

112 ff.] [21: 225 ff.] [94] to influence the continuous [536] cultivation and regulated yield of their estates in order to cover the needs of the ruler, his family and his entourage to some extent, as well as the constantly rising costs of equipping a powerful army and establishing an administration in the expanding empires. However, the corruptibility of those entrusted with "economic management", and above all the very low productivity of the peasant economy, placed very narrow limits on such efforts. This is demonstrated by the repeated outbreaks of famine, which were exploited by individual feudal lords to increase grain prices through usury and speculation. [50: 489 ff.] Charlemagne, for example, took action against this and tried to keep grain prices stable by fixing prices, importing or banning exports. [64: 122 f.] In addition, encroachments by spiritual and secular feudal lords were sharply criticized. The aim of these measures was to avoid an excessive exacerbation of the social tensions between the rural population and the feudal powers that arose in the course of the feudalization process and to ensure a minimum grain supply. [18: 41 ff.] [20: 69 ff.] In addition to the direct promotion of their own economic interests, as expressed for example in regulations on the management of royal estates, the indirect influence of individual rulers on economic issues can also be recognized. For example, the payment of tithes, the most important tax for the church, was sanctioned by Charlemagne in the Frankish Empire [20: 20 ff.] and by Vladimir the Saint in Kievan Rus' [21: 225 ff.]. Both rulers wanted to guarantee the material basis of the church as an important pillar of domestic power. In the conquered territories of the Carolingian Empire, monasteries received extensive land grants as bases for Frankish rulers. [67: 267 ff.]

In general, it can be said that in Western, Central and Eastern Europe in the early Middle Ages, income in kind from central authority was in the foreground. Money payments skimmed off from long-distance trade (e.g. the customs regulations of Raffelstetten 904/5) [53: 344 ff.] were not lacking, nor was income from the coinage regime. [58: 5 ff.] In the 9th and 10th centuries in France and Germany, considerable financial profit could also be made from the granting of market privileges (weekly markets, fairs). [16: 90 ff.] [17: 73 ff.] [63: 262 ff.] However, the economic use of the crown estate in Central Europe remained distinctly naturalistic until the 12th century. [4: 197]

The situation was somewhat different in the early feudal period in those regions where external influences such as conquests revitalized the economy and accelerated overall social development. The Arabs, for example, who invaded Spain at the beginning of the 8th century, brought economic and cultural prosperity to the Iberian Peninsula through their links with the highly developed oriental culture. The cities that flourished in the Islamic dominions of Spain rather than in the north of the country, such as Córdoba and Toledo, were among the most important and populous economic centers in Europe. Monetary impulses emanated from them, which had an impact on all areas of social life. This enabled, *for example*

B. the Caliph of Córdoba already in the 10th century to have a high financial income. [87: vol. 1, 1017 ff.] Reference should also be made to England, where the more advanced social conditions of the continent were introduced with the Norman Conquest. After William's victory in Normandy in 1066, the process of feudalization, which had been relatively slow on the island until then, was brought to an accelerated conclusion and urban development was also driven forward. The "Domesday Book" (Book of the Last Judgement), recorded on behalf of William I around 1087, contains a precise overview of the king's possessions and income and shows that the ruler was entitled to considerable monetary income. [77: 945, 1008 ff.]

Compared to the conditions in early medieval Europe outlined above, developments in Byzantium exhibited two significant differences: *Firstly*, during the transition to feudalism, it was possible to build on already fully developed class state structures. Therefore, the lord had a stronger position from the outset than in Western, Central and Eastern Europe, where class-state traditions were largely absent and feudal states therefore had to be built primarily on a basis that had yet to be created. [72: 788 ff.]

The Byzantine rulers were therefore able to intervene more effectively in the economic conditions within their sphere of power. *Secondly*, in contrast to those in Europe, these were not determined by the natural economy; instead, commodity-money relations played a much greater role here due to the often intact urban system. As a result, the Byzantine rulers had at their disposal the monetary revenues that were indispensable for the establishment and functioning of a centralized administration, which were derived from the taxation of trade, industrial production and agriculture. [32: 38 ff.] [35: 357 ff.] [36: 18 ff., 57 ff., 81 ff.] [59: 109 ff., 153 ff.] In contrast, the feudal powers in Western and Central Europe were only able to draw on financial income to a greater extent when, with the transition to *high feudalism*, the purely agrarian feudal early period was overcome by the emergence of the fully developed city and the monetary relations that spread from there. The economic power and political agency of the ruling class depended to a large extent on the extent to which it was possible to harness the new non-agricultural potential of power alongside the traditional income from land ownership. Using the example of a centralized monarchy (France) and a feudally fragmented state (Germany), we will outline the extent to which and the intensity with which the crown estate could be further expanded as a support for central power in both countries under very different historical conditions and, above all, the cities could be used as sources of financial benefits.

In France [27] [40] [43] [44] [57] [65] [66] [70] [78], the cities had to pay taxes to the kingdom since the end of the 12th century, which exercised rights of control over the municipalities from around the middle of the 13th century. Their representatives had to give an annual account of municipal income and expenditure in Paris, where the French king had resided since 1250.

The extent to which the French kings sought to take advantage of the growing trade in goods and money in their country since the 13th century is also evident from the fact that Louis IX enforced that the coins minted in royal mints should be valid throughout the country, while the coins minted by feudal princes and barons were only allowed to circulate within their sphere of power. [40: Vol. 1, 99]

The king's increasing monetary income enabled him to better manage and more effectively utilize the crown property, which had been expanded through warfare and other means. Goods

Whereas under purely natural economic conditions such services could only be obtained in return for the granting of land - with all the resulting consequences (feudalization of the "office") - it was now possible to appoint paid "officials" who could be dismissed at any time and were therefore much more dependent on the king. One step in this direction was that the kings began to lease the administration of the individual crown estates for a limited period to whoever offered the most. This ensured the annual receipt of fixed sums. However, as these "Vorsteher" (Latin: *praepositus*, French: *prevôts*) exploited their "office" without consideration during the lease period, they were placed under the control of so-called *baillis* who, as officials of the king, received a fixed salary and, in addition to administering justice, were primarily responsible for the collection of all revenues from the royal estates. [4: 300 ff.] [14] Overall, the French kingdom had relatively high monetary revenues. Under Louis VII (1137-1180), for example, they amounted to 80,000-100,000 "libra Parisiensis" [4: 753] annually, i.e. roughly the same amount as the English king received at the end of the 12th century, who, like the kings of France, relied on the cities in particular for his economic policy. [61: vol. 1, 228 ff., 262 ff.]

In general, it can be said that the French king's ability to dispose of financial revenues, which were controlled in the central Chamber of Accounts (Chambre de Comptes) established at the beginning of the 14th century [45], had a considerable impact. In the army, for example, the traditional vassal troops were replaced by much more powerful salaried forces, which could be used successfully against internal (barons, princes) and external enemies (England). The administration of justice was improved and standardized through the appointment of legists with fixed salaries, most of whom came from bourgeois circles. The centralization of the French state was accelerated. This economically and politically strong position of the French king remained fully intact when, from the beginning of the 14th century, the "Estates General" (*états généraux*) resisted his tax demands - in 1300-1304, a general tax (*taille royale*) was levied in France for the first time to cover the entire kingdom [69: 58 ff.] [46: 150 ff.] [74: 233 ff.] After the end of the Hundred Years' War (1337-1453), the influence of the estates was increasingly restricted. Between 1450 and 1500, the Estates-General were convened only twice, without the king raising the question of taxation for discussion. The provincial Estates, which still met on various occasions in the "provinces" - in Normandy, Burgundy and Languedoc - also defended themselves against the tax demands of the central power, but could do little to counter the predominance of the royalty with its staff of officials. [74: 250]

Let us now turn to developments in Germany. Here, too, the central power in the 12th and 13th centuries, especially under the rulers of the Hohenstaufen and Habsburg dynasties, sought to expand the imperial estate territorially, create the largest possible complexes and increase revenues through better administration. [73: 136 ff., 229 ff., 298 ff.] The royal cities in particular were used as sources of financial income. Frederick I, for example, had new mints built in Hagenau, Kaiserslautern, Schwäbisch-Hall, Gelnhausen, Nordhausen, Altenburg and Eger [34: 520]; Louis the Bavarian still drew a net profit of around 500 pounds Heller from the Nuremberg mint. [76: 437] A tax list from 1241 shows that the annual tax sum to be paid by towns to the king amounted to around 7,100 marks of fine silver (about 1,660 kg). Most of this revenue came from imperial cities, with Frankfurt a. Main leading the way with 250 marks, followed by Basel, Gelnhausen and Hagenau with 200 marks each. [39: 70 ff.] The predominance of monetary levies recognizable in this tax list is confirmed by an annual statement of account from 1242 by the bailiff Gerhard von Sinzig for a crown estate complex in the Rhine region. [49: 17 ff.] The Hohenstaufen were able to obtain particularly high financial income [539] from the economically highly developed Upper Italy. The importance of this region for German kings and emperors in the 12th and 13th centuries can be seen from the fact that they spent around 49 of the 102 years of their reign from 1152 to 1254 in Italy. [4: 584] They left here

and establish customs offices and mints, among other things. Taxes were levied from the Italian municipalities by imperial officials. The procedures developed in these cities were

taxation (creation of tax registers, assessment of taxpayers' assets, etc.). Every year, the Hohenstaufen family received an average of 70,000-80,000 '*libra imperiales*' from "imperial Italy". [5: 13 ff] [28]

Like the central power, the princes in Germany, who had become increasingly powerful since the 11th century, also sought to exploit the expanding commodity-money relationships. In contrast to France and England, the regional feudal powers in Germany were better able to exploit the economic resources available to them than the kings, whose foundations of power had increasingly dwindled since the collapse of the Hohenstaufen empire. [73: 251] In contrast, the princes in particular were able to increase their economic potential in various ways in the territorial dominions that had emerged since the 13th century. They strove to exploit the existing sources of income more intensively. In an effort to increase their income, the feudal upper classes began to change the manorial structure inherited from the early Middle Ages. In doing so, they were reacting to the increasing resistance of the peasants in connection with the emergence of the city - especially against serfdom - and their striving for more independent economic management. Labor rents were now mainly replaced by payments in kind, sometimes in cash, and the land was given to the peasants. The economic policy activities of the landlords are evident in these processes. In addition, the economic position of the lords was to be strengthened through "internal colonization", the founding of towns, the promotion of trade through customs and coinage measures, the standardization of weights and measures, the maintenance and construction of transport routes and bridges, etc. [10] [76]. [10] [76] The sovereign urbaria that emerged in the course of the 13th century (e.g. in Bavaria, Austria), which covered larger areas and more diverse services than the early medieval manorial urbaria, illustrate how successfully rights and revenues were controlled in the emerging territories. [85: 496 f.] [92] The compilation of detailed inventories, tax, interest and invoice lists (e.g. in Tyrol) shows that the lords were able to increase their financial income in particular.

[68] This made it possible for them to partially overcome the barriers imposed by the medieval feudal system when establishing the administration of their "country" and to make use of paid civil servants who could be dismissed at any time and with whose help the state structure could be centralized.

The further expansion of the economic and political position of the sovereigns was ultimately achieved through a combination of improvements to the "infrastructure" and territorial expansion. This was particularly true of the areas east of the Elbe, where it was possible to expand one's own domain by conquering neighboring West Slavic territories and increasing income through systematic peasant settlement and the establishment of non-agricultural economic centers. Thus, after expansion had been completed, peasants from the western Rhine regions were induced to settle by means of appeals, the recruitment of lords and the concession of privileges (years free of service during the clearing and cultivation of new land, fixed levies, exemption from compulsory service, hereditary ownership of land, own jurisdiction). [79: 349 ff.] [95: 328 ff., 344 ff.] The establishment of towns and markets took place in close [540] connection with the peasant settlement, whereby these were often given the necessary economic background with the simultaneous establishment of villages. [79: 345 ff.] [95: 364 ff.]

The features of a planned economic and political approach that emerged in the course of feudal German expansion to the east in the case of Henry the Lion in Mecklenburg and Albrecht the Bear in the Margraviate of Brandenburg not only considerably increased the income of these princes, but were also the decisive prerequisite for the political consolidation of their domains.

Generally speaking, the economic power and political influence of the territorial lords grew considerably through "internal colonization", expansion and the economic exploitation of the conquered territories. Their financial revenues in particular exceeded those of the king from the 13th century onwards [88: 297], above all because the emerging territorial states succeeded in subordinating the cities. [9: 105 f.] In the following centuries, the territorial princes succeeded in acquiring the most important royal sovereign rights (regalia), the economic use of which was particularly lucrative for the central power, albeit to varying degrees (forestry, mining, etc.),

customs and coinage regimes). For the Rhineland electors (Cologne, Mainz, Trier), for example, the Rhine customs duties were a very lucrative source of income that was fiercely contested between the king and the particular powers in the 13th and early 14th centuries - e.g. under Albrecht 1 of Habsburg [10: 136 ff.] [73: 329 ff.], while in Saxony and Tyrol, for example, the Bergregal brought the sovereign significant profits. [73: 255 f.] The situation was different again in the eastern Elbe regions, where the sovereign, as the largest landowner, profited financially above all from the so-called Kammergut (domain). [12: 145 ff.] [13: 325 ff.]

However, growing income was offset by rising expenditure from the 13th century onwards. The costs of administration, warfare, court maintenance etc. increased and led to a constant need for money on the part of the sovereigns. The taxes (Bede), which had therefore been levied with increasing frequency since the 13th century, ultimately met with resistance from the nobility and towns, who, united in estates, resisted the financial demands of the sovereigns. [74: 252 ff.] They had to make important economic concessions to the estates in order to reduce the growing debt burden. In those territories (Pomerania, Mecklenburg, Brandenburg) where the nobility played a far greater role than the towns than in other areas, these concessions primarily served their economic interests. In the East Elbian territories [29: 513 ff.], as in some Eastern European countries, e.g. Poland [62: 221 ff.] [82: 149 ff.] and Russia [84: 47 ff.] [11: 17 ff.], the feudal nobility took advantage of the concessions more or less forced upon them to complete the transition to manorial rule, to have the exploitation of the peasants, which was intensified in this context, legally sanctioned and to bring trade and industry in the cities under their influence. The constellation of political forces was different in the estates west of the Elbe - for example in Württemberg and Tyrol - where the towns were often able to maintain an independent position vis-à-vis the feudal nobility. Larger cities, such as Nuremberg, Frankfurt am Main, Strasbourg, Dortmund, Goslar, Lübeck and Leipzig, even developed into economically and politically serious opponents of the territorial princes. [9: 105 ff.]

An overview of the economic policy measures implemented by the feudal powers with more or less success in early and fully developed feudalism reveals the following: Within the limits imposed by the specifics of feudal society itself (simple instruments of production, relatively low productivity), kings and princes were able to generate higher incomes from their landholdings by improving and controlling economic management, which could in some cases be considerably increased through the planned expansion of the land. The founding of markets and towns was promoted in many cases. Above all, this generated financial income, which was considerably increased by the taxes levied from the 13th century onwards, as well as by coin revocations [41: vol. 1, 322 ff.]. Reference should also be made to the land peace legislation of the 12th and 13th centuries, where in view of the massive threat to the peasant economy posed by the particularly rampant feuding at the time, the farms of the peasants, their fields, their tools and their livestock were expressly placed under royal protection in individual provisions. Among other things, this was intended to prevent the complete ruin of agriculture, which threatened the existence of the feudal order. [These activities of the various representatives of the ruling class, some of which intervened directly in economic development, should not be underestimated. However, attempts to influence the individual branches of the economy in a coherent, comprehensive and targeted manner only became visible when a new era of economic development began to emerge with the emergence of the first capitalist elements in *late feudalism*. The new attitude to economic issues, which gradually emerged and showed a certain insight into the course of economic processes, was characterized above all by attempts to systematically promote industrial production at home, to keep the outflow of money to other countries as low as possible, to curb the import of foreign goods and to increase exports. It was evidently recognized that growing tax revenues could only be achieved if the economic conditions were also created in the country itself.]

Approaches in this direction can be found in England as early as the 14th century. [30] [38] [41: vol. 2, 103 ff.]

[55] [56] [80: 299 ff., 316 ff.] The import of iron was banned in 1355. Around the middle of the 15th century, the import of silk goods was banned. This was followed in 1464 by a general ban on the import of almost all commercial products. The local trade, which was protected from foreign competition in this way, was to be further promoted by recruiting foreign workers. As early as 1337, immigrant clothiers were granted royal protection and various privileges. In the 15th and 16th centuries, Dutch salt boilers, Bohemian miners, German armourers, glassmakers and weavers from Italy settled in England. Industrial production was further developed through the establishment of manufactories. Significant sources of income were opened up for the English crown through the systematic promotion of trade, the privileging of English merchants, shipping, the establishment of trading companies and the colonial expansion that began in the mid-16th century. A clear expression of the increasing accumulation of trading capital in this way was the founding of the London Stock Exchange in 1566 by Thomas Gresham.

A similar development can be observed in France from the second half of the 15th century. [3] For example, Louis XI (1461-1483) founded a silk manufactory in Tours [25] [40: vol. 1, 210 ff.], which was later followed by other manufactories. Fairs held in larger French cities, such as that of Lyon, were privileged, while French merchants were occasionally forbidden to attend foreign fairs, for example in Geneva, in order to prevent the outflow of "gold and silver" there. The promotion of mining was intended to encourage the extraction of precious metals, especially silver, in order to expand the minting of coins. Imported luxury goods were subject to high customs duties. A "protectionist" economic policy was generally intended to promote the development of industrial production at home and accelerate the formation of a domestic market. In 1523, a reform of the financial administration was carried out and a central authority (Tresor de l'Epargne) was created in order to have a better overview and control of monetary income. They were considerably increased through the granting of civil servant positions in exchange for money, the so-called purchase of offices. [54]

In Central Europe, relatively far-reaching economic policy activities, for example in the field of cotton weaving, can already be observed under Charles IV (1346-1378) and Sigismund (1410-1437). [70] As a result of planned promotion, this trade developed relatively quickly from the second half of the 14th century until around 1440 in more than 50 places in Swabia, Franconia, Bavaria, Austria, Bohemia, Silesia, Hungary and Lesser Poland. In some Swabian towns such as Ulm, Augsburg, Memmingen, Biberach and Kaufbeuren, cotton weaving became the main branch of production, with important impulses coming from some large Upper German trading houses. By recruiting weavers from Lombardy and Venice, the rich experience of the cotton weaving industry, which had existed here for longer than in the regions north of the Alps, could be utilized.

In contrast to England and France, the transition to a more comprehensive economic policy approach in Germany from the second half of the 16th century initially took place within a territorial state framework due to different historical conditions. [86: vol. 2, 395 ff.] [88: 608 ff.] The sovereigns sought to increase their income by gradually emancipating themselves from the right of the estates to impose taxes and by better recording the economic potential of their territory, for example by compiling administrative statistics. In addition, they purposefully promoted, partly as

"trade and commerce. For example, export bans on wool were imposed in Saxony and Brandenburg in the second half of the 16th century in order to secure the supply of cheap raw materials for the local cloth-making industry. In Saxony in particular, iron ore mining and silver mining in the Ore Mountains [42: 77 ff.] were promoted.

With the development of absolutist forms of rule in Europe, the financial requirements of the feudal powers increased considerably and the costs of paying the state apparatus and the standing army rose ever more. Tax increases were intended to cover the growing financial burdens. In this context, a form of state economic policy emerged, the beginnings of which were already recognizable in England, France and Germany in the 15th and 16th centuries.

is mercantilism. [37: 171 ff.] In line with the prevailing commercial capital of the time, its supporters assumed that the sources of national wealth were to be found primarily in the sphere of circulation, i.e. in trade. The main goal derived from this, an active trade balance, was to be achieved above all by promoting trade and transport within the country, favoring foreign trade through the establishment of trading companies and a forced colonial policy, restricting imports (protective tariffs) and establishing manufactories in the most diverse branches of production. The most important theorists of mercantilism lived primarily in England (e.g. Davenant), where mercantilism developed earliest. On the continent, its principles were practiced above all in France (Colbert) [7], but were also applied in Germany [2] [90: 58 ff.] and in Eastern Europe (e.g. in Russia under Peter the Great) [23: 46 ff.] [60: 49 ff.] [83] [84: 51 ff.].

In general, it can be stated that the mercantilist economic policy implemented in the individual European states in various forms and intensities with a temporal phase shift accelerated the development of trade and commerce and promoted the process of the original accumulation of capital, which in turn was the most important economic precondition for the overcoming of the feudal social order by capitalism.

Literature:

- 1 *Abel, W.*: Geschichte der deutschen Landwirtschaft vom frühen Mittelalter bis zum 19. Jahrhundert. 2nd ed., Stuttgart 1967; 2. *Bog, I.*: Der Reichsmerkantilismus. Studien zur Wirtschaftspolitik des Heiligen Römischen Reiches im 17. und 18. Jahrhundert. Stuttgart 1959; 3. *Brandel, F./Labrousse, E.*: Histoire économique et sociale de la France. 2 vols. Paris 1968 f.; 4. *Brühl, C.*: Fodrum, gistrum, servitium regis. Vol. 1-2, Cologne/Graz 1968; 5. *Ders.* in: HZ, vol. 213, 1971, pp. 13 ff;
- 6 *Chevalier, B.*, in: Le Moyen Age. Vol. 70, 1964, p. 473 ff.; 7. *Cole, W.*: Colbert and a century of french mercantilism. 2 vols., London 1939; 8. *Czok, K.*, in: ZfG, 1973, H. p. 925 ff.; 9. *Ders.* in: Haupttendenzen der europäischen Stadtgeschichte im 14. und 15. Jahrhundert. T. 2, Magdeburg 1974, p. 105 ff.; 10. *Dirlmeier, U.*: Mittelalterliche Hoheitsträger im wirtschaftlichen Wettbewerb. Wiesbaden 1966; 11. *Donnert, E.*: Rußland an der Schwelle der Neuzeit. Berlin 1972; 12. *Droege, E.*, in: VSWG, vol. 53, 1966, p. 145 ff.; 13. *Ders.* in: Der deutsche Territorialstaat im 14. Jahrhundert. Bd. 1, Konstanz 1970, p. 325 f.; 14. *Dupont-Ferrier, G.*: Les officiers royaux des baillages et sénéchaus-sées et les institutions monarchiques locales en France a la fin du moyen-âge, Paris 1903; 15. *Ders.*: Études sur les institutions financières de la France à la fin du moyen-âge. 2 vols., Paris 1930-1932;
- 16 *Endemann, T.*: Markturkunde und Markt in Frankreich und Burgund vom 9. bis 11. Jahrhundert. Stuttgart 1964; 17. *Ennen, E.*: Die europäische Stadt des Mittelalters. Göttingen 1972; 18. *Epperlein, S.*, in: JWG 1963, T. I, p. 41 ff.; 19. *Ders.*: Bauernbedrückung und Bauernwiderstand. Berlin 1960;
- 20 *Ders.*: Herrschaft und Volk im karolingischen Imperium. Berlin 1969; 21. *Ders.* in: Die Rolle der Volksmassen in der Geschichte der vorkapitalistischen Gesellschaftsformationen. Berlin 1975, p. 220 ff.; 22. *Ders.* in: JWG 1977, T. III, p. 221 ff.; 23. *Fedosov, I. A.*: VI 1971, H. 7, p. 46 ff.; 24. *Forberger, R.*: Die Manufaktur in Sachsen. Berlin 1958; 25. *Gandilhon, R.*: La politique économique de Louis XI, Rennes 1940; 26. *Grekow, B. D.*: Die Bauern in der Rus von den ältesten Zeiten bis zum 17. century. Vol. 1, Berlin 1958; 27. *Halphen, L.*, in: Revue d'histoire économique et sociale, Vol. 38, 1950, p. 253 f.; 28. *Haverkamp, A.*: Herrschaftsformen der Frühstauer in Reichsitalien. T. I/II, Stuttgart 1970/71; 29. *Heitz, G.*, in: Der Bauer im Klassenkampf. Berlin 1975, p. 513 ff.; 30. *Hill, Chr.*: Reformation to industrial revolution (Re Pelican economic history of Britain, vol. 2). Harmondsworth 1969; 31. *Hinrichs, C.*: Die Wollindustrie in Preußen unter Friedrich Wilhelm I. Berlin 1933; 32. *Hoffmann, G.*: Kommune oder Staatsbürokratie? Berlin 1975; 33. *Jassemin, H.*: La chambre des comptes de Paris au XV^e siècle. Paris 1933; 34. *Kamp, N.*, in: Hamburger Beiträge zur Numismatik, vol. 17, 1963, p. 520; 35. *Karayannopolus, J.*, in: Byzantinische Zeitschrift, vol. 51, 1958,

Kashdan, A. P.: Byzanz und seine Kultur, 3rd ed., Berlin 1973; 37 *Kellenbenz, H.*, in: Comité international des sciences historiques, XII^e Congrès international des sciences historiques. Viennes 1965, Rapports IV, p. 171 ff.; 38. *King, P.*: The development of the english economy to 1750. London 1971; 39. *Kirchner, G.*, in: Zeitschrift der Savignystiftung für Rechtsgeschichte,

- German department. Vol. 70, 1953, p. 70 ff.; 40. *Köller, H./Töpfer, B.*: Frankreich. A historical outline. 2 vols, 2nd ed., Berlin 1973; 41. *Kulischer, J.*: Allgemeine Wirtschaftsgeschichte des Mittelalters und der Neuzeit. 2 vols., Berlin 1954; 42. *Laube, A.*: Studien [544] über den erzgebirgischen Silberbergbau von 1470-1546, in: Forschungen zur mittelalterlichen Geschichte, vol. 22, Berlin 1974; 43. *Lemarignier, J. F.*: Le gouvernement royal aux premiers temps capetiens. Paris 1968; 44 *Lot, F./Fawtier, R.*: Histoire des institutions françaises au moyen-âge. Vol. 2, Institutions royales, Paris 1958; 45. *Lot, F.*: Le premier budget de la monarchie française. Le compte general, Paris 1932;
- 46 *Major, J. R.*: Representative institutions in renaissance France 1421-1559, Madison 1960; 47. *Mayer, Th.*: Geschichte der Finanzwirtschaft vom Mittelalter bis Ende des 18. Jahrhunderts. Vol. 1, 2nd ed., Tübingen 1952; 48 *Metz, W.*: Das karolingische Reichsgut. Berlin (West) 1960; 49. *Ders.*: Die staufischen Güterverzeichnisse. Untersuchungen zur Geschichte des Reichsgutes im 12. und 13. Jahrhundert. Berlin 1964; 50. *Ders.* in: Charlemagne. Life's work and afterlife. Vol. 1, Düsseldorf 1965, p. 489 ff.; 51. *Ders.* in: Erträge der Forschung. Vol. 4, 1971, p. 25 ff.; 52. *Mitchell, S. K.*: Taxation in medieval England, New Haven 1951; 53. *Mitterauer, M.*, in: Mitteilungen des oesterreichischen Landesarchivs. Vol. 8, 1964, p. 344 ff.; 54. *Mousnier, R.*: La venalité des offices sous Henri IV. et Louis XIII. Paris 1945; 55. *Murphy, B.*: A history of the British economy (1086-1970). London 1973; 56. *Nef, J. U.*: Industry and government in France and England, Ithaca 1957; 57. *Newman, W. M.*: Le domaine royale sous les premiers Capetiens (987-1180). Paris 1937; 58. *Novy, R.*, in: Histo- rica. Vol. 14, 1967, p. 5 ff.; 59. *Ostrogorsky, G.*: Geschichte des byzantinischen Staates. 2nd ed. Munich 1957; 60. *Pavlenko, N. S.*, in: Istorija SSSR, H. 3, 1978, p. 49 f.; 61. *Ramsay, J. H.*: A history of the revenues of the king of England (1066-1399). 2 vols., Oxford 1925; 62. *Rhode, G.*, in: Jb. GO, NF 12, 1964, p. 221 ff.; 63. *Schlesinger, W.*, in: Vor- und Frühformen der europäischen Stadt im Mittelalter. Bd. 1, Göttingen 1973, p. 262 ff.; 64. *Schmitt, H. J.*: Faktoren der Preisbildung für Ge- treide und Wein in der Zeit von 800 bis 1350. Stuttgart 1968; 65. *Schramm, P. E.*: Der König von Frankreich. 2 vols, 2nd ed., Weimar 1960; 66. *Sée, H.*: Französische Wirtschaftsgeschichte. 2 vols., Jena 1930; 67. *Semmler, J.*, in: Charlemagne. Life's work and afterlife. Vol. 2, Düsseldorf 1967, p. 267 ff; 68 *Stolz, O.*: Der geschichtliche Inhalt der Rechnungsbücher der Tiroler Landesfürsten von 1288-1355. Innsbruck 1955; 69 *Strayer, J. R./Taylor, Ch. H.*: Studies in early french taxation. Cambridge (Mass.) 1939; 70. *Stromer, W. V.*: The foundation of the cotton industry in Central Europe. Economic policy in the Middle Ages. Stuttgart 1978; 71. *Tautscher, A.*, in: VSWG 1974, vol. 61, p. 1 ff;
- 72 *Töpfer, B.*, in: ZfG, 1965, H. 5, p. 788 ff.; 73 *Ders./Engel, E.*: Vom staufischen Imperium zum Hausmachtkönigtum. Weimar 1976; 74. *Töpfer, B.*, in: Jahrbuch für Geschichte des Feudalismus. Vol. 1, 1977, p. 233 ff.; 75. *Trawkowski, St.*, in: Vorträge und Forschungen (Reichenau-Vorträge 1970- 72). Vol. 18, Sigmaringen 1975, p. 349 ff.; 76. *Troe, H.*: Münze, Zoll und Markt und ihre finanzielle Bedeutung für das Reich vom Ausgang der Staufer bis zum Regierungsantritt Karls IV. Wiesbaden 1937; 77. *Wattenbach, W./Holtzmann, R.*: Deutschlands Geschichtsquellen im Mittelalter. 3rd T., new edition by F. J. Schmale. Weimar 1971; 78. *Werner, K. F.*, in: Vorträge und Forschungen (Rei- chenau-Vorträge 1965-67). Vol. 12, Stuttgart 1968, p. 177 ff.; 79. *Zientara, B.*, in: Festschrift für Wilhelm Abel on his 70th birthday. Vol. 2, Hanover 1974, p. 345 ff.; 80. *The Cambridge economic history of Europe*. Vol. 3, Cambridge 1963; 81 *Capitulare de villis*. (Brühl, C.), Cologne/Graz 1971; 82. *Dzieje gospodarcze Polski do roku 1939*. 2nd ed., Warsaw 1973; 83. *Genesis und Entwicklung des Kapitalismus in Rußland. Studies and contributions*. Berlin 1973; 84. *History of the USSR. From the beginnings to the present*. Berlin 1977; 85. *Handbuch der bayrischen Geschichte*. Vol. 2, Munich 1966; 86th Handbook of German History. Vol. 1-2, 9th ed., Stuttgart 1970; 87th Handbuch der European history. Vol. 1, Stuttgart 1976; Vol. 3, Stuttgart 1971; Vol. 4, Stuttgart 1968; 88. *Handbuch der [545] deutschen Wirtschafts- und Sozialgeschichte*. Vol. 1, Stuttgart 1971; 89. *Istorija sred- nich vekov*. 2 vols., Moscow 1977; 90th Yearbook of the History of Feudalism. Vol. 1, 1977,

p. 11

ff.; 91. *Kulturhistorisk leksikon for nordisk middelalder*. Vol. 9, Copenhagen 1964; 92. *Österreichische Urbare, Tu: Die landesfürstlichen Urbare*. Vienna/Leipzig 1904; 93. *puti razvitija feodalizma*. Moscow 1972; 94. *Russkaja Pravda*. Vol. 1-2, Moscow 1940, 1947; 95. *Die Slawen in Deutschland*. 3rd ed, Berlin 1974.

Siegfried Epperlein

2.4.8. Early capitalism

Early capitalism is generally understood to be the widespread occurrence of capitalist forms of enterprise in extractive industry, in certain areas of commercial commodity production and above all in circulation before and at the beginning of the transitional epoch from feudalism to capitalism under feudal conditions that still prevailed overall.

The term "early capitalism" is not precisely defined. It is sometimes used synonymously for the manufactory period, i.e. for the emergence and development of capitalism from the 16th century to the Industrial Revolution, but above all for the period before the manufactory period and for its beginning, i.e. for the early capitalist development in some city states of Upper and Central Italy and in Flanders from the 14th century until its conspicuous spread in many European regions in the 16th century, whereby the later development of manufacturing capitalism in the 17th/18th century is excluded due to the break in development observed in various countries in the second half of the 16th century. Rutenburg understands early capitalism most comprehensively as a pan-European phenomenon which, starting in Italy in the 14th century, spread essentially uninterrupted until the beginning of the 19th century. At the same time, Rutenburg answers the problem of continuity and discontinuity of early capitalism in terms of continuity. [26]

[27] [29] In general, however, where the term is used, it covers the beginning of the process of the original accumulation of capital as well as the beginning of the manufacturing period in those European countries, including their early colonies outside Europe, where these processes were particularly conspicuous. Because of this vagueness of the term and for other reasons, which will be discussed later, some Marxist economists and economic historians abandon it altogether and instead use the more precise politico- nomic or formation-theoretical terms such as original accumulation of capital, trade and manufactory capitalism or manufactory period or transitional epoch from feudalism to capitalism. [4] [6] (see also [19]).

In terms of the relations of production, early capitalism is characterized by the widespread occurrence of publishing, i.e. the capitalist exploitation of small-scale artisanal production by commercial capital, manufacturing or other forms of capitalist ownership of the means of production and cooperation based on the division of labour in mining, shipbuilding and certain areas of commercial goods production, as well as new forms of enterprise in trade with their combination of trade, banking and production. other forms of capitalist ownership of the means of production and cooperation based on the division of labour in mining, shipbuilding and certain areas of commercial goods production, as well as new forms of commercial enterprise with their combination of trade, banking and production, such as the Italian companies of the 14th century or the Upper German corporations of the 16th century.

[546] The basis was formed by the original accumulation of capital, by which Marx understood the process in which the preconditions for the emergence of capitalism were created. Since capitalism requires, on the one hand, owners of large money capital and means of production and, on the other, a mass of free wage laborers as sellers of their labor power, the main content of the process of original accumulation was the separation of the previous producers from their means of production and the accumulation of large money funds, mainly in the form of merchant capital and currency capital. The methods used in the expropriation of the producers and in the accumulation of capital were different, but generally violent, up to the bloody plundering of the colonies. The development of England examined by Marx in Volume 1 of Capital [MEW 23: 741 ff.], which was characterized by the violent expulsion of the peasants from their land and the development of the internal market forced in this way, is regarded as the classic case of the original accumulation of capital, which clearly shows the basic tendencies. However, the con- ret-historical manifestations were different in the individual countries.

Above all, the transition from simple to early capitalist commodity production took place first and foremost through publishing. The initiative came from merchant capital. With the regional and social expansion that developed in the late Middle Ages and the structural change of the market, i.e. its geographical expansion and branching out, the inclusion of ever broader classes in commodity-

money relations and the increasing demand for cheap

mass-produced goods, new profit opportunities arose for merchants and, in particular, the well-funded large trading companies. The prerequisite, however, was to overcome the dependence on the limited capacities of small-scale goods production. This was done by the merchants advancing ("presenting") raw materials and sometimes also money for production instruments etc. to the craftsmen and, according to their knowledge of the market, commissioning them to produce certain goods in certain quantities and according to certain quality characteristics, which they then purchased at prices they set. In this way, the merchant, as a so-called distributor, subjected the producers concerned to increased exploitation and even complete expropriation of their means of production. The formerly self-employed craftsman "becomes a de facto wage laborer who works for the capitalist in his own home; the buyer's commercial capital becomes industrial capital". [LW 3: 374] The publishing house brought about a considerable increase in the volume of production and an increase in productivity. It should be noted, however, that the domination of commercial capital over production through publishing was inevitably conservative, since the mode of production itself was not changed. [MEW 25: 347 f.]

A higher stage in the genesis of capitalism was the manufactory. Its basis also remained manual labour, but broken down into many specialized individual workers who worked together on the production of a commodity in a division of labour and under the command of the capitalist or his representatives, i.e. according to Marx they formed a "total worker combined from many partial workers" [MEW 23: 369]. Marx described the combination of different occupations in one workshop as a heterogeneous manufactory, the division of a production process into "interrelated phases of development, a sequence of stage processes" [MEW 23: 364 ff.], each of which is carried out by specialized sub-workers of one occupation, as an organic manufactory. If production took place in one workshop - whether heterogeneous or organic - it is a centralized manufactory; if it [547] took place in various individual workshops, including homework, then it is a decentralized or dispersed manufactory.

In various areas of production, e.g. in ore mining and especially in precious metal mining, capitalist property relations, forms of enterprise and production conditions developed that cannot be fully characterized by the terms publishing house or manufactory; however, here too production and cooperation had a manufactory-like character.

However, the most obvious examples of early capitalism were the large corporations, trading companies and banks. In contrast to the medieval trading companies, in which long-distance merchants pooled their trading capital for a specific trading venture or for a limited period, carried out the business jointly or through agents and shared the risks and profits proportionately, new forms of enterprise developed in connection with the change in the market, which were no longer limited exclusively to trading in goods, but combined this with direct participation in production and with financial and banking transactions. The Florentine companies, such as the Bardi and the Peruzzi, initially amassed enormous amounts of financial capital in the 13th and early 14th centuries through banking and usury transactions and, in the course of the 14th century, used their capital to enter the trading and manufacturing business, set up cloth factories and operated cloth production on a large scale, from the procurement of raw materials to the trade in finished cloth. In Upper Germany at the end of the 15th and beginning of the 16th century, it was family businesses and corporations such as those of the Fuggers, the Welsers, the Höchstetters and others that covered the enormous capital requirements for their global business by raising outside capital as silent partnerships or in the form of fixed-interest deposits. In addition to trading and financial transactions, they also went straight to the sources of profit and became involved in mining and textile publishing.

Capitalist conditions developed earliest in some of the city states of northern and central Italy. [22] [27] [29] [34] The centers were Milan, Genoa and Venice in northern Italy, Siena, Florence, Prato, Pisa, Perugia and others in central Italy. Early capitalism was not limited to the city, but also included the surrounding countryside to some extent. In the 13th century, the cities had already penetrated the countryside, destroying the feudal ties of the peasants, giving them

At the same time, however, the right to the land was taken away. Instead, leaseholds were introduced, in which short-term leases and half leases, known as *mezzadria*, played a special role. In the latter case, the municipal landowner invested part of the capital, while another part was provided by the tenant. The rent received by the landowner was partly feudal land rent and partly profit derived from the investment capital, the latter being divided in various proportions between landowner and tenant. The half-lease represented a transitional form from the feudal to the capitalist rent. It promoted the expansion of the old peasantry and the process of rural differentiation and thus formed an element of the original accumulation of capital. In particular, the small owners of land were decimated: the freed labor force formed a reservoir for the labor needs of urban manufactories.

This was enormous for the time. In 1388, the 200 workshops of the Florentine wool guild (*Arte della Lana*) employed around 30,000 workers, i.e. a third of Florence's 90,000 inhabitants at the time. The workshops were owned by the large companies or families. The production process did not [548] take place solely within the workshop. Rather, only certain operations were carried out here, such as the preparation of the wool by beating, chaffing and combing, which was then outsourced to home workers in the countryside for spinning; the piecing of the yarn and some of the weaving was again carried out in the central workshop, some of the weaving was also outsourced to home workers, and so on. In this way, the raw materials or semi-finished products left the central workshop several times and returned to it again until the finished cloth was ready for the market and was brought to the trade by the companies. There was a highly developed division of labor both between the wage laborers within the central workshop, the so-called *ciompi*, and between the central workshop and the small workshops or home workers. Similar conditions, from decentralized manufactories to centralized ones, also existed in other Italian cities. One of the most outstanding enterprises of this kind was that of Francesco Datini in Prato. Like other Italian companies of the 14th-16th centuries, he prefaced his account books with the formula: "In nome di Dio e di guadagno" (in the name of God and profit), which symbolically expresses the consciousness and aspirations of these early capitalists.

The workers were highly exploited. For a 16-hour working day in the Florentine manufactories, a wage was paid that could just about be considered a subsistence minimum for a worker with a family. An ingenious and harsh system of penalties and fines, coin manipulation in the payment of wages and other measures ensured high profits for the capitalists at the expense of the workers. Calculations showed that the average annual profit of 14.7% from trade and banking operations was in some cases exceeded by the profits from the manufactories.

Outside of Italy, early capitalist conditions existed in the 14th century above all in Flanders and Brabant [5] [9] [10] [11], especially in the large textile centers around Ghent, Bruges, Ypres, Arras, St. Omer and Lille, where about half of the population was involved in cloth production. In contrast to Italy, however, the publishing industry clearly dominated here, i.e. production was carried out by master craftsmen dependent on the publisher with apprentices and up to 10 journeymen each. It was only in the course of the 15th century that decentralized manufacturing became established here as well. At the same time, the trend towards cheap mass-produced goods led to a decline in the importance of the large cloth towns and an expansion of early capitalist textile production to smaller towns and the countryside, as well as to new branches of industry such as the production of light woolen and cotton fabrics and linen. Early capitalist production conditions developed in the metal trades, especially around Liège and Namur, as well as in Dutch shipbuilding. Antwerp became one of the most important international transshipment points. [33]

The development of manufacture was most pronounced in England. [7] [8] [23] It was based on the early inclusion of agriculture in the process of the development of early capitalism. Serfdom and bondage were abolished as early as the 14th century and especially in the 15th century. Under the manorial system, the mass of the peasantry developed into simple commodity producers. Sheep farming and wool production were at the forefront of this. While until the 14th century a

While much of the wool was exported to the Italian and Flemish cloth centers, a separate cloth industry developed in the 15th century, especially in the southern and eastern counties of England. In the process of increasing social differentiation, a class of rich farmers, the so-called *yeomen* or *freeholders*, emerged from the broad mass of free peasants, who owned large flocks of sheep, produced wool with the help of wage laborers, had cloth woven and brought the cloth itself into the trade [549]. On the other hand, large sections of the small peasantry, who represented the reservoir for the labor needs of the cloth industry, were already being set free at this time. From the end of the 15th century, and especially after the church reform, this process of original accumulation took on great proportions through the enclosure of land for sheep farming and the forcible expulsion of the peasants. In cloth production, decentralized manufacture had already developed around the middle of the 15th century and became widespread during the 16th century. The 16th century also saw the emergence of centralized manufactories such as that of John Winchcombe from Newbury in Berkshire, which, according to a contemporary description, combined 200 looms in one room; the same company included workshops for preparing and spinning wool, a cloth fulling mill and a dye works; over

1,000 workers are said to have been employed here. Early capitalist production conditions also developed in other branches of English industry during the 16th century, for example in silk production, linen and especially cotton, the production of iron goods, coal and ore mining and the manufacture of leather goods, glass, soap, etc. A national market emerged in England with London as its economic center.

Manufactory-capitalist relations developed in a less stormy way than in England in other parts of Europe, in France [23, 32], the East-Central European regions [15] or in Russia. [38]

A temporary leading position in the development of early capitalism was gained at the end of the 15th century and the first half of the 16th century, the West, Central and South German economic areas were the most important. Here, too, publishing relationships had already developed in some areas in the 14th century, for example in some textile and metalworking trades in Cologne [12] [13], in the manufacture of weapons, armor and small ironware in Nuremberg [35: vol. 2, 620 ff.] and in the centers of Upper Swabian leather and barchet production. [21] There are indications that publishing was also a well-known phenomenon in Upper Germany in the 14th century. Recent research has shown that early capitalist economic practices were also common in Upper German, primarily Nuremberg, trading houses in the 14th century.

In the 14th/15th century, they penetrated the ore mining industry in the Carpathian region and dominated it for a time, laid the iron hammers of the Upper Palatinate, owned or laid paper mills and other production facilities and engaged in trading, credit and other monetary transactions on a large scale. [31] [35]

However, a qualitatively new stage of economic development was only reached in the last third of the 15th century.

This was achieved in the 15th century (for the following - unless otherwise documented [20]), particularly in connection with the flourishing of ore mining. The prerequisite for this was the strong accumulation of merchant capital as early as the 15th century. Social statistics studies based on tax registers have shown that, especially in the centers of export trade, supra-regional trade and mining, both the number of citizens with large fortunes and the amount of wealth concentrated in individual hands multiplied. In addition to its traditional uses - long-distance trade, consumption, the purchase of annuities, the acquisition of real estate and property - this monetary capital sought new profitable investment opportunities.

Apart from the areas or trades where publishing had already established itself early on, the basis of this upswing up to the 15th century was the developed simple production of goods, which reached its peak at that time through progressive specialization within the guild system. Nevertheless, it alone was no longer able to meet the constantly increasing demand for cheap mass-produced goods. The capacity of the market had grown enormously at the end of the 15th and beginning of the 16th century, primarily as a result of the development of the internal market, population growth and the expansion of the market as a result of geographical discoveries.

The inner market had developed through an increasingly dense network of local, regional and supra-regional markets for everyday goods (food, textiles, wood and leather goods, small iron and other metal goods) involving broad sections of the population. An analysis of the account books of some manor and servant households in the Palatinate revealed that goods were purchased from around 150 places in the Palatinate, the Middle and Upper Rhine region and sometimes beyond to supply these households at the end of the 15th century and the first decades of the 16th century. Even in a pure servants' household, there could be no question of self-sufficiency; instead, almost 40% of the food, clothing etc. required was purchased; 46% of these were local goods, 54% came from areas outside the Palatinate. The proportion of purchased goods was considerably higher in the manorial households. [3] The fact that the peasant population was an important market factor even for large Upper German companies such as the Welsers is impressively demonstrated by a letter from Jakob Welser dated September 29, 1525, in which he searched for the reasons why the demand for copper in Nuremberg had fallen by half to two-thirds since the beginning of the Peasants' War, and he cited the weakened purchasing power of the peasants due to the terror and punitive measures against the rebels as the primary cause. In addition to the inclusion of ever broader sections of the population in the commodity-money economy, population growth was also a key factor in both the increasing demand on the markets and a source of liberation for larger sections of the population who had little or no means of production. As early as the first decades of the 16th century, contemporaries complained about increasing overpopulation, especially in the German southwest. Finally, the geographical discoveries were of great importance for the expansion of the market, creating the conditions for the emergence of an early capitalist world market.

The existence of a merchant capital capable of investment on the one hand and an increasing demand for cheap mass-produced goods, especially textiles and metals, which could no longer be satisfied by the small craftsmen and their guilds, on the other, favored the penetration of capital into production from the last third of the 15th century. In western, southern and central Germany, capitalist production conditions spread in various stages, from publishing to the relatively developed forms of enterprise in mining.

The sharp increase in demand for metals and metal products and the soaring demand for coinage metals in the economy and state directed merchant capital primarily towards ore mining. Its penetration into the mining industry around 1470 marked the beginning of the heyday of early capitalist mining and metallurgy and the mining business based on it, which lasted until around the middle of the 16th century. The mining industry stimulated the rapid spread of capitalist relations in other areas of non-agricultural production, trade and banking, and was a key characteristic of early German capitalism. The production conditions in precious and non-ferrous metal mining corresponded to the development stage of manufacturing capitalism; the mining business became an important part of international trade and money transactions, i.e. the emerging world market (see 2.4.3.).

[551] In the centers of copper processing and other metal trades such as Nuremberg, Braunschweig, Cologne, Aachen and neighboring Stolberg, in the small iron trades of the Upper Palatinate and the Siegerland, the publishing house continued to expand. According to research by Irsigler [12] [13], Cologne capital was invested in smelting, blowing and hammer works, grinding and polishing mills on the left and right banks of the Rhine; lead mining in the northern Eifel was almost completely controlled by Cologne and Aachen entrepreneurs, while iron mining was largely controlled by them. Cologne's merchant capital also had a significant influence on the steelworks and hammer mills in Siegerland and Nassau as well as the steel districts of Breckerfeld and Attendorn. In 1463, Cologne secured the entire production of the local steel smiths' guilds through monopoly contracts. In addition to securing the supply of raw materials in this way, Cologne's merchants and publishers increasingly began to purchase semi-finished products produced in the surrounding area and to have them made by Cologne craftsmen up to the

marketable end product. Cologne's iron and steel publishers, the so-called Eisenwirte, played a decisive role in this process. They granted loans to both external producers and craftsmen from within the city and, together with merchants and publishers who had risen through the ranks, controlled production and sales almost completely. Towards the end of the 15th century, the structure of goods also changed in favor of mass production for a broad range of buyers. At the end of the 15th century, the Nuremberg metal trades also belonged to the regularly published trades. [35: Vol. 2] The Council's economic policy was completely geared towards the dominant publishing system. Most of the craftsmen had lost their independence and were in the service of the merchants-publishers. Various statements by contemporaries attest to the fact that the poor craftsmen in Nuremberg and Augsburg, but also in other Upper German cities, had to feed themselves mainly through piecework, the profits of which were raked in by the merchants and publishers. The so-called pieceworkers were a class of wage laborers who owned no means of production, worked mainly for commercial publishers and were employed especially when and where a boom required a rapid increase in production. [36: 333 ff].

This also applied to the various branches of textile production. In connection with the rapidly increasing demand for cheap products from the canvas, barchent and cloth industries [1] [16] [21] [35: vol. 2, 669 ff.] in the traditional European markets and with the development of new markets overseas, merchants increasingly began to organize large-scale production by trading in raw materials and crediting producers. This was most successful in the production of bark, where the Upper German merchants had an important means of exerting pressure by procuring cotton from the oriental and, above all, Italian markets. One of the most important centers was the Upper Swabian Barchent region around Ulm and Nördlingen.

From the end of the 15th century, the old Westphalian and Upper German production areas for canvas increased their production considerably. New centers were added in western and eastern Saxony, Upper Lusatia and Silesia. For example, Upper German merchants had simple raw canvas produced in Saxony, processed it into marketable colored canvas in Nuremberg and other Upper German cities and exported it overseas. However, the production of traditional bleached canvas also increased significantly.

Linen and barchent production was mainly organized by publishers. The Fuggers had also laid the foundations of their capital through the exploitation of the Augsburg perch weavers they had [552] employed. Jakob Fugger then organized a publishing barchent weaving mill in Weißenhorn, which only worked for his company. Fugger-Barchent was one of the most important artisans of the Antwerp wholesale market.

The merchant Martin Scheller organized large-scale production of velvet in Ulm in 1514. He brought fullers from Rome to Ulm, had them spun, knitted and dyed there and trained the workers so that they soon mastered velvet production without outside help. As the sources report, Scheller relocated the entire production. It must have grown to such an extent that even 17 years later a contemporary reported that although the poor in Ulm supported themselves as in Augsburg with barchent weaving, wool weaving and spinning, Ulm had an advantage in that velvet was produced here and many people, women and men, old and young, could feed themselves from it, as many people were needed for it. [18: 273 ff.] This company could be described as a decentralized manufactory.

Publishing or more developed forms of capitalist production also became established in the cloth trade, especially in the production of cheaper, coarser woolen fabrics. In Strasbourg, the publishers largely developed from wealthy master craftsmen. As so-called Tucher, they allowed spinners and weavers to work for them and limited themselves to a controlling position. A center of cloth production was Görlitz, where, in addition to numerous independent craftsmen - in 1527, 265 masters belonged to the guild - so-called masteries developed, which were already beginning to take on the character of manufactories. In them, dependent master craftsmen and

The entire production process, from beating the wool to shearing the finished cloth, was carried out by skilled or unskilled workers with extensive labor disassembly. The owners of such masters' workshops were rich masters as well as merchants and brewery owners.

Early capitalist production conditions or transitional forms to them also developed in shipbuilding in the Hanseatic city, in book printing and publishing, in paper manufacturing and in various other trades.

The incarnation of early German capitalism was the large firms and corporations in Upper Germany [2] [30], above all the Augsburg Fuggers. [24] [25] Their progenitors had immigrated to Augsburg towards the end of the 14th century. They joined the weavers' guild, practiced the weaving trade and presumably already combined this with trading and publishing. They bought cotton in Venice, which was processed in Augsburg, and brought the finished barchent to the long-distance trade. In the second generation of the Augsburg Fuggers, Jakob, the later "Rich", began his rise as a partner of his brothers in 1478 in Venice, where he managed the local branch. He was apparently the first to recognize the high profit potential of the mining business and therefore became increasingly involved in the metal trade and mining operations. At the end of the 15th century, Jakob Fugger gradually acquired mining rights himself, particularly in Tyrol, through financial manipulation and credit transactions with lords of the realm who had rich mining resources at their disposal, and made high profits from mining there. Later, by ruthlessly eliminating the competition, he himself became a major tradesman, which brought him high entrepreneurial profits in addition to the parasitic regal income. In 1495, he joined forces with the Krakow entrepreneur Johann Thurzo in the Lower Hungarian/Slovakian copper district and developed a unified, organizationally highly developed capitalist mining company. The company set up smelting works and hammer mills, including in the Thuringian Forest, and built up a sales organization with numerous factories covering large parts of [553] Europe. Based on his monopolistic and dominant position in the Lower Hungarian/Slovakian and Tyrolean mining industry and with the political backing of the Habsburgs, who rendered all monopoly claims against him ineffective, Jakob Fugger had a decisive influence on the international mining business. The profits from this must have been enormous for those times. From 1487 to 1494, the Fuggers made a profit of around 400,000 guilders from the Tyrolean silver trade alone; the balance of the so-called Hungarian trade, i.e. the exploitation of the Lower Hungarian/Slovakian mines, resulted in a profit of over 1.5 million guilders from 1495 to 1525.

In addition to their interests in mining, the Fuggers also remained heavily involved in textile publishing; they organized, dominated and expanded the production of perchent in the area around Weissenhorn to such an extent that the Weissenhorn Fugger perchent became a serious competitor for the leading perchent city of Ulm. The Fuggers supplied Weißenhorn barchent to all Western European countries and also overseas via Antwerp.

The Fuggers' trading network expanded enormously. They established factories in most of the European capitals that were important for trade as well as in the international trading centers. With their exchange and remittance traffic, they covered almost the whole of Europe. The Fuggers' financial and banking operations were of the same magnitude. They performed banking functions for the Habsburgs and the papal church, as well as for a number of European ruling houses, the high and middle nobility and the clergy. Their capital, like that of other Upper German firms and companies (especially the Welser), flowed into the coffers of the emerging centralized states of Western Europe, to Spain, Portugal and France. In this way, privileges were also purchased for overseas expansion, e.g. for participation in Portugal's state spice trade or for the exploitation of Spanish mercury mines (Höchstetter, Fugger). However, this outflow of a large proportion of capital into the coffers of Western European rulers had disastrous consequences for the further development of early capitalism, not only because it deprived the economy of large sums of money that served the interests of the feudal state, but also directly because of the huge losses in the wake of the state bankruptcies around the middle of the 16th century.

In comparison with other Western European countries, particularly England, Germany's early capitalist development was characterized by a number of special features. Its temporary leading position in Europe was largely based on mining and the coal and steel industry. On the one hand, it was therefore dependent on natural conditions (mineral resources, local conditions), while on the other hand the Bergregal, i.e. the territorial princes' monopoly ownership of the precious mineral resources, gave feudal forces a relatively large influence on this most important branch of early capitalist production from the outset, which hindered its free capitalist development in various ways and also led to an early political arrangement between capitalist entrepreneurs and feudal powers, despite numerous disputes between them.

Another negative factor was that the largest and most important branch of the feudal economy, agriculture, was generally not affected by early capitalist development. Here, too, there were a number of regionally varying signs of decomposition of the feudal mode of production. Land had largely taken on the character of a commodity, the land monopoly of the feudal lords had long since been broken, agricultural production and the type of exploitation [554] of the peasants (forms of rent) were significantly influenced by their inclusion in the market economy. This was evident in the market production of grain, livestock and special crops for the commercial centers. For the latter, i.e. industrial crops such as flax, woad, madder, safflower, hops, etc., as well as sheep farming in areas of close urban-rural relations, the penetration of capital into rural production can also be observed. [12] [13] In addition, the rapid population growth from the beginning of the 16th century also had a partial effect on the rural areas in terms of releasing labor. Overall, however, the nobility managed to absorb this development on the one hand by adapting to the new conditions (without - as in England - securitizing them), and on the other hand by intensifying feudal production and exploitation conditions to the point of introducing or reinforcing serfdom in some areas.

Finally, it should be noted that the development of capitalism in the German territories lacked the national or central state framework that was of constitutive importance for the formation of a national market. It is true that the internal market also developed across territorial borders in the German territories, and that the strong unevenness of economic development in the various regions, which also existed elsewhere - e.g. in England - was compensated to a certain extent by the supra-regional division of labor. However, the lack of support from a genuine central power in the external markets, the absence of an economic and state center such as London or Paris, the strength of the feudal territorial powers and their parasitic policy of absorption proved to be serious obstacles to capitalist development, which became particularly effective after the defeat of the early bourgeois revolution.

Nevertheless, the advanced German regions occupied a prominent place in the overall development of early capitalist relations until around the middle of the 16th century, which can be characterized with Engels as the leading economic position in Europe, as the world market position or international economic position of Germany [MEW 37: 274; 39: 483], especially since the current state of research has proven an even stronger and longer-lasting capitalist development than the material known to Engels indicated.

The social consequences were manifold. Analyses of social structure and wealth have shown that social development in the cities, but also in the countryside, underwent the greatest changes in the decades in which early capitalism unfolded, i.e. from around 1470 to the beginning of the 16th century. It was characterized by a rapid progression of differentiation, even polarization, in wealth relations. In the cities, wealth grew in the hands of a relatively thin upper class, and in the countryside, too, there was a certain increase in the wealthy peasant class in areas of close market relations. The middle classes declined considerably in numbers, and the urban plebeian class and the land-poor and landless village population grew particularly strongly.

Above all, however, new social forces emerged. On the one hand, a relatively broad social class formed from merchants-entrepreneurs, publishers, mining companies, etc., which primarily consisted of

The bourgeoisie had emerged from the old urban bourgeoisie, but also from other classes and strata of feudal society, and in which we must see the beginnings of the commercial and manufacturing bourgeoisie. [18: 282 ff.] Even if they were still often connected with feudal or pre-capitalist conditions of simple commodity production, the owners of funds who invested them in production with the aim of profit-making exploitation, who took control of production [555] and reduced the producers to dependency until they expropriated the means of production, exploited pure wage laborers and appropriated the surplus value produced by them, became bourgeois. In this emerging commercial and manufacturing bourgeoisie, the commercial bourgeoisie continued to dominate for a long time.

On the other hand, a still very heterogeneous class of displaced craftsmen developed in the cities and, in part, in the countryside (linen weaving, metalworking) in fluid transitions between limited ownership of the means of production with continued nominal independence to complete expropriation and wage labor. The latter included above all the aforementioned pieceworkers. They, as well as other displaced craftsmen, were characterized by contemporaries as the poorest of the poor. A Strasbourg deacon who, on behalf of his council, studied the poor relief system in several Upper German cities in 1531, found that poor craftsmen and pieceworkers were the main recipients of alms from the city, not because they had no work, but because they could not live on their wages. [18: 275]

It was primarily in the large mining districts that a pre- or early proletarian class of pure wage laborers developed, who were in a capitalist production relationship and worked together in a division of labor. Social struggles against exploitation, which already had specific proletarian characteristics, also took place here at an early stage (see 2.4.3.).

The resistance actions of the early capitalist-exploited craftsmen are more difficult to capture in terms of sources. Although there were several waves of urban uprisings before and during the early bourgeois revolution, which were supported by small merchants, craftsmen and plebeians, a specifically anti-capitalist thrust can only be identified in exceptional cases. This was evident in the years of unrest, some of it bloody, within the Augsburg weavers' guild, where poor, displaced weavers defended themselves against the practices of merchants and publishers.

An openly anti-capitalist thrust (alongside an anti-feudal one) was also evident in the so-called anti-monopoly movement against the increasing domination of the economy by the fuggers, Weiser, Höchstetter etc., which began at the end of the 15th century, reached its peak during the early bourgeois revolution and then slowly subsided. It brought together the hostility of the craftsmen against the monopolization efforts of the large companies and against the new economic practices of the publishing industry in general; the competitive envy of the larger merchants and the existential fears of the small and medium-sized merchants; the rebellion of the princes, who were falling into ever greater debt, against their financiers, as well as the nobility's injured sense of status against the increasing political influence of the great financial powers; the indignation stirred up by the Church over the disregard of the canonical prohibition of interest and over usury; the agitation among the peasants and the broadest strata of the people over the increasing inflation, for which the large companies, procurers and usurers were held responsible.

The movement took place on various levels: Theoretical disputations and controversial writings debated the economic and moral permissibility of capital companies and their deposit transactions. The Imperial Diet issued strict monopoly bans in 1512, 1523, 1524, 1526 and 1530 and initiated measures against the large companies for monopoly offenses, but these remained ineffective as the emperor backed his Upper German financiers. The monopoly issue and the fight against the large companies also played a role in the revolutionary mass movement. Such demands were advocated both in the urban uprisings, in Bundschuh programs and in the uprising of "Poor Conrad" on the eve of the early bourgeois revolution, as well as during the revolution itself, for example in pamphlets by reformers, in programs of the insurgents such as the so-called Heilbronn program

and in Michael Gaismair's Tyrolean provincial order as well as in the miners' uprisings in the Alps. Nevertheless, there were no such major uprisings in Germany that arose directly from the early capitalist relations of production, such as the Ciompi uprising of 1378 in Florence [28] [34], which, on the other hand, remained more or less localized and did not have an impact on a crisis affecting society as a whole.

But this was the case in Germany. Here, the economic and social changes leading to capitalism and the intensified commodity-money relations on the basis of simple commodity production caused or influenced a progressive disintegration of feudalism, the intensification of its contradictions and a series of crisis phenomena in the economy, society, state and ideology. Symptoms of crisis such as the crisis of imperial power, the factional struggles among the nobility and their inability to cope with the problems that arose, the development of the territorial state, the crisis in the relationship between broad sections of the population and the church and within the church, as well as the ideological crisis as a whole, were also partly rooted in the changed economic and social conditions. In contrast to the centralized Western European states such as England and France, where the alliance of a strong royalty with the bourgeoisie initially led to the evolutionary path of capitalist development via absolutism, the contradictions at the beginning of the transition from feudalism to capitalism led to the early bourgeois revolution under the special conditions in Germany. The early bourgeois revolution was a necessary consequence of the new social conditions, and it had to contribute objectively to accelerating the transition from feudalism to capitalism. [17] The suppression of the revolutionary mass movement also severely damaged further capitalist development. It is true that ore mining reached a peak in the 1330s and 1340s, and linen and bark production continued to rise in the second half of the 16th century. Overall, however, there was a break in the development of German capitalism in the second half of the 16th century, not only because of the influx of American silver, the shift in world trade routes and the huge losses suffered by the Upper German companies as a result of the state bankruptcies in Western Europe, but above all because of the consolidation of princely power, the stabilization of feudal production relations and the increasing policy of skimming off the territorial powers from the bourgeois economy. From the middle of the 16th century, capitalist development in the German states slowed down, the bourgeoisie adapted to the princely regime and, in some cases, refeudalization occurred. It was not until the 18th century that manufacturing capitalism developed again on a broader basis in Germany, although it is no longer subsumed under the term "early capitalism".

Early capitalism covered only a part of social production and the exchange based on it, whose dialectical interrelationship with the old feudal relations must be taken into account. In terms of political economy, it was the beginning of the original accumulation of capital and the first forms of trade and manufacturing capitalism within the feudal basis. In terms of formation theory, early capitalism is not - as the term might suggest - an early stage of capitalist social formation or an intermediate stage between feudalism and capitalism, but a certain stage of late feudalism, in which feudal conditions continue to prevail, even politically. It is a preliminary stage or the beginning of the epoch of the decline of feudalism and the emergence and development of manufacturing capitalism, which took on a stadial character at the end of the 15th/beginning of the 16th century under particularly favorable circumstances locally or regionally, and which required an increasingly mature sequence of early bourgeois and bourgeois revolutions in order to lead capitalism to victory against feudalism.

Literature:

1 *Aubin, G./Kunze, A.*: Leinenerzeugung und Leinenabsatz im östlichen Mitteldeutschland zur Zeit der Zunftkäufe. Stuttgart 1940; 2. *Bauer, C.*: Unternehmungen und Unternehmungsformen im Spätmittelalter und in der beginnenden Neuzeit. Jena 1936; 3. *Bull, K.* in: Beiträge zur pfälzischen Wirtschaftsgeschichte. Speyer 1968, p. 53 ff.; 4. *Čistožvonov, A. N.* in: Der Bauer im Klassenkampf.

Berlin 1975, p. 1 ff.; 5. *Ders.*: *Niederländskaja buržuaznaja revoljucija XVI veka*. Moscow 1958; 6. *Ders.* in: *ZfG* 1973, H. 1, p. 31 ff.; 7. *Clarkson, L. A.*: *The pre-industrial economy in England 1500-1750*. Batsford 1972; 8. *Dobb, M.*: *Entwicklung des Kapitalismus*. Berlin(West) 1970; 9. *Espinas, G.*: *La draperie dans la Flandre française au Moyen Age*. 2 vols., Paris 1923; 10. *Ders.*: *Les origines du capitalisme*. 3 vols, Lille 1933-1946; 11. *Houtte, J. A. v.*: *Essays on medieval and early modern economy and society*. Leuven 1977; 12. *Irsigler, F.* in: *Zwei Jahrtausende Kölner Wirtschaft*. Vol. 1, Cologne 1975; 13. *Ders.*: *Die wirtschaftliche Stellung Kölns im 14. und 15. Jahrhundert*. Beihefte des VSWG, Wiesbaden 1977; 14. *Kellenbenz, H.* in: *L'industrialization et typologie*. Paris 1972; 15. *Klima, A./Macurek, J.* in: *XI^e Congrès International des Sciences Historiques. Rapports IV*, Göteborg/Stockholm/Uppsala 1960, p. 84 ff.; also the discussion, in: *ibid*, *Actes du Congrès*, 1962, p. 166 ff.; 16. *Kunze, A.*: *Der Frühkapitalismus in Chemnitz*. Karl-Marx-Stadt 1958; 17. *Laube, A.* in: *Der deutsche Bauernkrieg 1524/25*. Berlin 1977, p. 57 ff.; 18. *Ders.* in: *Jahrbuch für Geschichte des Feudalismus*. Vol. 1, Berlin 1977, p. 273 ff.; 19. *Ders.* in: *Haupttendenzen der europäischen Stadtgeschichte im 14. und 15. Jahrhundert*. T. 1, Magdeburg 1974, p. 94 f.; 20. *Laube, A./Steinmetz, M./Vogler, G.*: *Illustrierte Geschichte der deutschen frühbürgerlichen Revolution*. Berlin 1974, p. 7 ff.; 21. *Lösche, D.*: *Zur Geschichte der Entwicklung der Produktionsverhältnisse in der Leinen- und Barchentproduktion oberdeutscher Städte*. Arbeitsbericht Nr. 3 des Forschungsseminars J. Kuczynski, Berlin 1953 (reproduced as Ms.); 22. *Melis, F.*: *Aspetti della vita economica medievale*. Vol. 1, Siena 1962; 23. *Nef, J. U.*: *Re Conquest of the Material World*. Chicago/London 1964; 24. *Pölnitz, G. Frhr. v.*: *Jakob Fugger*. Vol. 1-2, Tübingen 1949-1951; 25. *Ders.*: *Anton Fugger*. Vol. 1-2, Tübingen 1958-1963; 26. *Rutenburg, V. I.* in *Haupttendenzen der europäischen Stadtgeschichte im 14. und 15. Jahrhundert*. T. 1, Magdeburg 1974, p. 87; 27. *Ders.*: *Italija i Evropa nakanune novogo vremen.*. Leningrad 1974; 28. *Ders.*: *Narožnye dviženija v gorodach Italii XIV-načalo XV veka*. Moscow/Leningrad 1958; 29. *Ders.*: *Očerk iz istorii rannego kapitalizma v Italii*. Moscow/Leningrad 1951; 30. *Strieder, J.*: *Studien zur Geschichte kapitalistischer Organisationsformen*. Munich/Leipzig 1925; 31. *Stromer, W. v.*: *Oberdeutsche Hochfinanz 1350-1450*. Supplements 55-57 of the VSWG, Wiesbaden 1970; 32. *Töpfer, B.*: *Frankreich*. Vol. 1, Berlin 1976; 33. *Wee, H. v d.*: *Re Growth of the Antwerp Market and the European Economy*. 3 vols., Re Hague 1963; 34. *Werner, E.* in: *Urban Popular Movements in the 14th Century*. Berlin 1960, p. 11 ff.; 35. *Beiträge zur Wirtschafts- geschichte Nürnbergs*, 2 vols., Nuremberg 1967; 36. *Beiträge zur Wirtschafts- und Stadt-^[558]ge- schichte*. Festschrift für Hektor Ammann, Wiesbaden 1965; 37. *The Fontana Economic History of Europe*. Glasgow 1974; 38. *Genesis and Development of Capitalism in Russia*. Berlin 1973.

Adolf Laube

2.4.9. Monetary system

Coin and monetary history

General [4: 16, 28]: The basis of the monetary system in feudalism is the so-called material value-based money in the form of gold and silver coins, which were given and taken in payment according to their precious metal content. The compulsion to produce good, full-value coins for trade and commerce, expressed in this classification according to precious metal content (intrinsic value, fineness), was countered above all by the efforts of the mint lords to make the greatest possible fiscal use of their right to mint coins, which until the 18th century was regarded as an inalienable source of income. The policy of the minting lords and states, who often deliberately used coin debasement as a means of increasing their revenues or financing increased state expenditure (e.g. for wars), usually proved to be stronger than the economic compulsion for good coinage and repeatedly led to severe monetary crises. Most of the coinage reforms undertaken after such low points ended sooner or later in renewed coinage debasement, and the monetary history of feudalism shows a constant ups and downs of reform and crisis since the replacement of the natural economy by the monetary economy.

In metrological terms, European coinage is based on the mark, a unit of weight that was introduced

in the 10th and 20th centuries.

In the 11th century, it replaced the pound, which had formed the basis until then, and subsequently took on slightly different national forms in terms of weight. The most important trade marks were the Cologne

Mark (233.85 g), the Paris Troymark (244.75 g) and the London Towermark (233.28 g). In Germany, the Cologne mark formed the basis of all coinage systems from the 15th century until the introduction of the customs pound of 500 g in 1857.

The coinage history of European feudalism can be summarized in three periods: Denarius period (8th-13th century), Groschen period (14th-15th century), Thaler period (16th-18th century). The Merovingian period (6th-7th century) is in many respects the transitional phase from Roman to medieval coinage. The decisive caesuras in terms of monetary history (i.e. the coin in its function as a means of value, circulation and payment) are: *firstly*, the break with the developed Roman monetary system, as it lived on in the Germanic state foundations of the Migration Period and in Byzantium, and the creation of a new coinage system based on the needs of a predominantly natural economy through the Carolingian reforms in the middle and end of the 8th century; *secondly*, the re-establishment of the Roman coinage system in the Middle Ages. The latter clearly indicated the degree of development of the monetary economy that had now been achieved, and at the same time led to a reform of the silver currency via the groschen and thaler levels, merging the coinage epochs of the groschen and thaler periods into a single monetary unit. In terms of monetary history, the threshold to the modern era was crossed with the introduction and spread of gold coins in the 13th and 14th centuries. In contrast, the emergence of taler coinage at the end of the 15th century [559], often referred to as the beginning of the modern era in coinage, is of less significance, as it did not change the monetary conditions created by gold coins and was rooted in the endeavor to provide a silver equivalent to gold coins in the face of increased silver yields and increasingly scarce gold. The early and high Middle Ages (denarius period, 8th-13th century) on the one hand and the late Middle Ages/ modern period (14th-18th century) on the other are the main monetary epochs of feudalism. The gradual replacement of money based on precious metal content by credit money (banknotes, state notes) in the 18th and 18th centuries was a major development in the history of money.

19th century refers to the transition to the monetary forms of capitalism.

Denarius period [3] [8] [13] [14]: The coinage system of the Germanic state foundations of the Migration Period, which was based on Roman and Byzantine models, underwent a number of changes under the Merovingians (triens, denarii, diversification into numerous monetary coins). Beginning in the 7th century and completed by the coinage reforms of the Carolingians in the middle and end of the 8th century [8], a simplified coinage system emerged that was geared to the needs of an economic order based on the economy in kind and the exchange of goods. The decisive changes were the move away from gold and towards silver currency, changes in the metrological basis (pondus Caroli; pound = 20 shillings = 240 denarii; adoption of the golden solidus as a silver coin of account in the form of the shilling, which was not actually minted) and the creation of a new silver denarius (approx. 1.5 g) as the only denomination minted, which no longer had anything in common with the old Roman denarius. It maintained its position (with some national modifications in terms of weight, content and external design) until the 13th century, met the requirements of a less developed monetary economy with a predominance of the natural economy for almost half a millennium and gave its name to this epoch of coinage and monetary history in Europe. Only in southern Italy and Sicily were the Byzantine coinage systems, which continued to exist under a developed commodity-money relationship, able to exert a significant influence.

The Middle Ages set the decisive accents in the development of coinage law [16: 246 ff.], and the conditions formed here were only slightly changed in modern times. The Carolingians brought the right of coinage, which had passed to numerous monetaries under the Merovingians, firmly back into the hands of the crown. Charlemagne was the sole minting ruler in his empire. Emerging from the collapsed Carolingian Empire, Germany and France subsequently represented the two opposing directions in the development of coinage law. The Ottonians still had a fairly firm grip on the right of coinage, which they granted in a controlled manner as part of their imperial church policy, preferably to the clergy, but also to the high nobility. The Salians had already lost much of their power of disposition, and the Hohenstaufen Frederick I (1152-1190) already found regionally stabilized monetary relations (period of the regional penny coin in the 12th and 13th centuries),

which

increasingly determined German coinage relations, even to the point of territorial statehood. The French development began with deodal arbitrariness in the coinage system, which almost condemned the king to insignificance and could only be slowly pushed back. When Germany then moved towards sovereignty after the interregnum, France made important progress on the way to coinage unity, which was then fully achieved in the 15th century. The handling of the coinage regime was largely dependent on the strength or weakness of the central power and on political and economic developments. The view widespread in older literature

"Stufentheorie" [6: 79] does not take this sufficiently into account, nor does the usurpation of coinage law that can be observed in desolate political conditions and the contradiction between the poor written [560] tradition and the actual practice (coinage privileges that were not followed by minting, as well as coinage for which all privileges were missing). Legally, the right to mint coins remained a crown right until modern times and in the Roman-German Empire always depended on the granting or confirmation of the emperor.

Today, economic history can no longer ignore the results of numismatics. In addition to coins, coin finds are a first-class source. The very different horizons of coin finds in the individual epochs provide a wide range of information, which need not be limited to answering the question of money circulation, hoarding or circulation. [11] In the absence of written sources, all significant results on the coin and monetary history of the early and high Middle Ages are based to a large extent on the evaluation of coin finds, whereby the instruments used for this purpose have been greatly refined and extended by new methods in recent decades (coin find statistics, the stamp-critical method, currency geography, computer technology).

Gold coin, groschen and thaler period (14th-18th century): Beginning in the 12th century and clearly visible in the

From the 13th century onwards, there was an increase in the monetary economy (urban development, trade, commerce, expansion of the country, replacement of taxes in kind by interest on money), which led to drastic changes in the field of coinage and currency. While the largely agrarian production up to that point only required monetary means of payment to a very limited extent, the developed coinage, whose prerequisite is a corresponding need for means of payment, is tied to the commodity-money relationship, whose most important carrier is the city. Cities had a direct interest in orderly and stable monetary relations for the prosperity of trade and commerce. [18] [19] Above all, they resisted the unbridled urge of the minting lords to exploit the coinage financially (fight against disrepute in the 12th and 11th centuries; union in coinage associations in the 14th and 15th centuries; counter-stamping in the 15th century).

The most economically developed Mediterranean region in Europe (Italy), which was in any case not so well developed in monetary terms due to trade with Byzantium and the manifold effects of the Crusades, became the cradle of gold coins (florins), which, although later modified and adapted to national interests, nonetheless determined the coinage of modern times in all states.

= florins in Florence since 1252; ducats in Venice since 1284). The second development, which began at about the same time and was to disrupt the coinage of the Middle Ages, was the reform of silver coins. Through various intermediate stages, the most important of which is the groschen (France: 1266, turnose; Bohemia: 1300, Prague groschen), the thaler emerged at the beginning of the 16th century, which was adopted in the coinage system of all European states (England: crown, France: ecu blanc, Italy: scudo, Netherlands: patagon, Scandinavia: dalér, Russia: jefimok, rouble) and formed the basis of a subsequently widely expanding denomination chain. Created in an effort to counter gold coins with a silver coin of equivalent value (silver yields had risen sharply in Germany, Austria and Bohemia in the 15th/16th century) and thus to bring gold and silver into a *fixed* relationship, it posed a number of problems that a series of imperial coinage reforms in the 16th century attempted to overcome in vain. [23]

From the 16th century onwards, copper was increasingly minted in Europe for the first time since antiquity. One source of constant monetary crises was the unresolved problem of the circulation coins. After all, the production of small denominations with a low content was a highly profitable source of income.

Mints that did not have their own silver mines and were dependent on the purchase of precious metals could only profit from their [561] minting rights through coin debasement by buying up foreign coins, melting them down and putting them back into circulation with a reduced precious metal content. In this respect, coin debasement was a means in the battle for minting metal and thus part of economic policy. Long-distance trade, for which coins were essentially only of value due to their precious metal content, made do with stable-value varieties (trade coins, e.g. the Hungarian gold guilder). In uncertain monetary conditions, cashless payment transactions were no longer a rarity from the 16th century onwards (foundation of giro banks in Venice in 1587, Amsterdam in 1609, Hamburg in 1619). While international trade was thus able to secure itself to some extent against the deterioration of coinage, domestic relations were sometimes chaotic. In Germany in the 16th century, many of the high quality thalers minted according to the imperial standard were melted down and put back into circulation in a flood of small change, which ultimately led to the monetary catastrophe of the Kipper and Wipper period (1618-1623) due to the increased need for money caused by the Thirty Years' War. While such monetary crises only occurred with comparatively little intensity in the denarius period due to the dominance of the natural economy, they can be cited - with varying degrees of severity - from almost all European countries from the 15th century onwards. [5] [15] [16: 245 ff.] [24: 93 ff.] The reason was always an increased need for money on the part of the state, which was satisfied by overstressing the cameralistic coinage system, i.e. by widening the spread between the face value (*valor extrinsecus*) and intrinsic value (expressed in the precious metal content, *valor intrinsecus*) of the coins, whereby the "credit" that the state demanded on its means of payment was not granted to it because it did not redeem them at the rate it had set. With the exception of England (foundation of the Bank of England in 1694), all attempts to put credit money (John Law; assignats) into circulation on a large scale failed for this reason in the 18th century.

Prices, wages, purchasing power [36]

Since the beginning of a sufficient written tradition, materials on the development of prices and wages have been available for all important European states (for the most important literature, see Maas [17] and Nohejlová [20], who sheds light on the contribution of numismatics to the history of wages and prices). However, it is no coincidence that a history of wages and prices in feudalism has not yet been written, despite numerous individual studies. Local and temporal differences are too great, even in Germany alone. The pendulum could swing sharply to one side or the other in the face of alternating phenomena of abundance and scarcity; natural disasters, epidemics and wars could have very different local consequences, and the economic situation of the immediate surroundings had a strong influence on prices and wages. Local peculiarities could therefore have a decisive influence on the picture. Only the examination of as many prices and wages as possible (assuming careful interpretation of the different types of sources and their peculiarities) can yield useful results. The most reliable sources are those that have been continuously recorded in the same place over a long period of time, such as the accounts of merchants and towns in the late Middle Ages or the accounts of church buildings. In order to determine purchasing power (wages in relation to prices), the local monetary conditions must be examined and the most accurate possible exchange rates of the numerous types of coins mentioned in the sources must be determined. Their mere reduction to the precious metal value alone is not sufficient. Although the precious metal value is the decisive factor in a monetary system based on the *valor intrinsecus*, questions of reliability and popularity also play a role in the contemporary determination of the market value (valorization) of a coin type. Finally, precious metal production, possible shifts in value between gold and silver and the constantly increasing demand for means of payment since the 16th century must also be taken into account.

The price revolution that occurred in Europe in the 16th century [27] is usually attributed to the sharp increase in silver yields from German, Austrian and Bohemian mines and, above all, to the Spanish import of silver from America (which, however, only took on more significant proportions from 1550 onwards). [10] The importance of the latter is undisputed, but is occasionally overestimated and has

z. For example, this did not lead to a major fall in the price of silver. The demand for silver as a coinage metal was far too great for this, and the value ratio between gold and silver only rose from around 1:11 (15th century) to 1:12 (1620) and only reached 1:15 (1687-1800) from 1687 onwards. [251 [35: 742] In addition to the increased silver production, the European coinage confusion (especially the inflationary conditions in Spain [5: 52 ff.]) played a significant role in the price revolution of the 16th century. The price revolution affected agricultural products more than commercial products.

Representative statements on the development of the purchasing power of money in feudalism are only possible from the 15th/16th century onwards, due to the more numerous and, above all, more continuous statistical material that has been handed down since this time. For the centuries before that, reliable results are only possible on a local, at best regionally limited basis, which cannot be generalized. [12] In general, it can be said that prices in Germany rose sharply in the course of the 16th century (especially from around 1550) until the beginning of the Thirty Years' War (price revolution) and wages fell far behind. After the tipper period (from around 1623), wages caught up while prices fell until 1670-1680. From the end of the 17th century and in the 18th century, prices again rose much faster than wages. [2: Vol. 1, 22 ff.] The 16th and 18th centuries are the periods of lowest purchasing power of wages.

Literature:

1 *Clain-Stefanelli, E.*: Select Numismatic Bibliography. New York 1965; 2. *Elsas, M. J.*: Umriß einer Geschichte der Preise und Löhne in Deutschland vom ausgehenden Mittelalter bis zum Beginn des 19. Jahrhunderts. Vol. 1-3, Leiden 1936-1949; 3. *Engel, A./Serrure, R.*: Traité de numismatique du Moyen Age. Vol. 1-3, Paris 1891-1905; 4. *Friedensburg, F.*: Münzkunde und Geldgeschichte der Einzelstaaten des Mittelalters und der neueren Zeit. Munich/Berlin 1926; 5. *Gaettens, R.*: Inflationen. Munich 1955; 6. *Gebhardt, H.*: Numismatics and monetary history. Heidelberg 1949; 7. *Grierson, Ph.*: Bibliographie Numismatique (Cercle d'Etudes Numismatiques. Travaux 2). Brussels 1966; 8. *Ders.*: Coins of the Middle Ages. Munich 1976; 9. *Ders.* in: Charlemagne. Bd. 1, Düsseldorf 1965, p. 501 ff.; 10. *Hamilton, E. J.*: American Treasure and the Price Revolution in Spain 1501-1650. Cambridge (Mass.) 1934; 11. *Hatz, G.*: Handel und Verkehr zwischen dem Deutschen Reich und Schweden in der späten Wikingerzeit. Stockholm 1974; 12. *Hauschild, U.*: Studien zu Löhnen und Preisen in Rostock im Spätmittelalter. Cologne/Vienna 1973; 13. *Hävernich, W.* in: Hamburger Beiträge zur Numismatik 3, 1955-57, H. 9, p. 5 ff.; 14. *Jesse, W.*: Quellenbuch zur Münz- und Geldgeschichte des Mittelalters. Halle 1924; 15. *Loehr, A.* in: Numismatische Zeitschrift. Vol. 57, Vienna 1924, p. 6 ff.; 16. *Luschin von Ebengreuth, A.*: Allgemeine Münzkunde und Geldgeschichte des Mittelalters und der neueren Zeit. Munich/Berlin 1926; 17. *Maas, W.* in: VSWG 1938, vol. 31, p. 357 ff.; 18. *Nazi, E.* in: Esslinger Studien 1964, H. 10, p. 13 ff.; 19. *this.* in: Blätter für deutsche Landesgeschichte 1964, H. 100, p. 145 ff.; 20. *Nohejlová-Prátorá, E.* in: Hamburger Beiträge zur Numismatik. Vol. 7, 1968-1969, [563] H. 22-23, p. 425 ff.; 21. *Nübling, E.*: Zur Währungsgeschichte des Merkantilzeitalters. Ulm 1903; 22. *Probszt, G.*: Österreichische Münz- und Geldgeschichte. Vienna 1973; 23. *Schrötter, F.* in: Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft 1911, H. 35, p. 129 ff.; 1912, H. 36, p. 99 ff.; 24. *Ders.*: Das preußische Münzwesen im 18. Jahrhundert. Vol. 1, Berlin 1904; 25 *Soetbeer, A.*: Edelmetallproduktion und Wertverhältnis zwischen Gold und Silber seit der Entdeckung Amerikas bis zur Gegenwart. Gotha 1879; 26 *Sprandel, R.*: Das mittelalterliche Zahlungssystem nach hansisch-nordischen Quellen des 13.-15. Jahrhunderts. Stuttgart 1975; 27. *Wiebe, G.*: Zur Geschichte der Preisrevolution des 16. und 17. Jahrhunderts. Leipzig 1895; 28. *Wielandt, F.* in: Handbuch der deutschen Wirtschafts- und Sozialgeschichte. Vol. 1, Stuttgart 1971, p. 658 ff.; 29th *Congnis international de Numismatique Paris 6-11 Juillet 1953.* vol. 1, Paris 1953; 30th *Congresso internazionale di Numismatica Roma 11-16 Settembre 1961.* vol. 1, Roma 1961; 31. *Hamburger Beiträge zur Numismatik.* Vol. 1 ff., Hamburg 1947 ff.; 32. *Numismatic Literature.* Vol. 1 ff., New York 1949 ff.; 33. *A Survey of Numismatic Research 1960-1965.* Vol. 2-3, Copenhagen 1967; 34. *A Survey of Numismatic Research 1966-*

1971. vol. 2-3, New York 1973; 35. *Wörterbuch der Münzkunde*. Berlin 1930; 36. Braudel, F./Spoo-ner, F. in: The Cambridge Economic History of Europe. Vol. 4, Cambridge 1967, p. 374 ff.

Bernd Kluge

2.4.10. Trade

Trade exists in all social formations in which there is production and circulation of goods, including feudalism. Trade and production are interrelated, with production being the determining factor. "The extent to which production enters into trade, passes through the hands of merchants, depends on the mode of production." [MEW 25: 337] The primacy of production over trade means that the development and forms of trade cannot be understood without an insight into the mode of production of the society within which it mediates the exchange of goods. Trade can be carried on between differently organized and differently developed areas of production, as long as they only exchange commodities, i.e. goods.

i.e. goods intended for exchange. Trade conducted by traders for the sake of profit is to be distinguished from "trade in commodities between the producers themselves, which is directed towards the exchange of use-values as the ultimate purpose" [MEW 25: 338]. In feudalism, both forms of trade existed side by side and even mixed with each other in isolated cases at first, but in the course of development, merchant trade increasingly outstripped exchange between producers and almost completely supplanted it. This, among other things, expresses the repercussions of trade on production, which it gives "more and more a character directed towards exchange value". [MEW 25: 338] In the following, only trade conducted by merchants is described as trade in which "buying and selling cease to be bound to the immediate need of the buyer (as a merchant)" [MEW 25: 338].

In the era of the transition to feudalism and the development of the feudal social order (end of the 5th to mid-11th century), the developing feudal mode of production was essentially of a natural economic character. It was mainly produced for personal use with a high degree of local and individual self-sufficiency and seclusion. The trade goods of this era were therefore predominantly high-quality goods of low volume and weight, which satisfied the needs of spiritual and secular feudal lords as luxury goods. Silk and brocade fabrics, carpets, precious stones, spices, incense, glass goblets, oil, gold and silversmith's work, high-quality weapons and leather goods, silver bars and coins came to Europe from the Orient and the Mediterranean countries. Northern and Eastern Europe supplied furs, amber and forestry products (honey, wax), but above all slaves, who were sold en masse through Central Europe to Spain. [18: 84 f.] Large numbers of prisoners of war were also sold as slaves from Rus' via Byzantium. [23: 289 ff.] The last time slaves were mentioned as goods for Germany was in the Coblenz customs roll of 1104 [27: 151], while in Italy, with its close connection to the Orient and the continued sea robbery in the Mediterranean, the slave trade was in fact practiced until the last decades of the Middle Ages. [25: 21]

The merchants ran their business as an itinerant trade, in which they organized the transport, purchase and sale of their goods themselves. The greatest risk lay in the transportation over long distances with the stranger being largely or completely without rights. For mutual protection, the travelers therefore joined together to form traveling cooperatives (caravan trade). The boundaries between trade and robbery were and remained blurred for a long time. Until the 10th century, Syrians, Arabs, Scandinavians ("Vikings"), Slavs, Jews, Italians, Frisians and Anglo-Saxons competed with Franks and Saxons in long-distance trade. In many cases, it was initially practiced as a sideline ("peasant and noble trade"). Secular feudal lords often took part in such long-distance voyages, which were a mixture of trade and robbery, the profits from which presumably played a role in consolidating feudal positions of power. It was not until the 10th century that a class of indigenous professional merchants emerged in Germany. Since then, only Jewish merchants have remained in the Rhine region. Trade by ecclesiastical feudal lords can be traced back to the 13th century in Germany. [45: 73 ff.]

With the advance of the Arabs to the southern and eastern coasts of the Mediterranean in the 7th century, Byzantium became the concentration point for trade in oriental goods, from where two major trade routes led to Europe. The western route went via the ports of northern Italy and southern France, up the Rhône valley through the Champagne region to Flanders, the Middle and Lower Rhine and England.

eastern route up the Dnieper via Kiev to the upper Volga, to Novgorod and from there to the Baltic Sea. The European countries in between were criss-crossed by a network of trade routes, through which connections were also made to the north and east of Europe. A capitulary from 805 established a series of border crossings and customs posts for trade between the Frankish Empire and the East [57: 123], and trade from Regensburg reached as far as Kiev in the 10th century. [33: 316 ff.]

From the 6th century onwards, the Frisians mediated trade between Western Europe and the areas around the Baltic Sea via the Jutland peninsula, on the eastern side of which Haithabu formed the transshipment point for East-West trade from the 9th to 11th centuries, with which the ports of the Scandinavian, Baltic and West Slavic peoples were connected. [10] [23] [55: 259 ff.] In the 10th century, the island of Gotland became the center of Baltic trade, which extended eastward via Novgorod and Kiev to Byzantium and along the Volga to Central Asia. Until the appearance of the German merchant on the Baltic in the 12th century, Scandinavians and Slavs dominated the Baltic trade. [10: 16 ff.] [37: 15 ff.]

Initially, goods were exchanged for goods, but by the 10th century at the latest, silver, whether minted or unminted, had established itself as the general equivalent of goods. This, [565] as well as the relative intensity and breadth of long-distance trade, is evidenced, for example, by the coin and silver finds in the Baltic region [37: 20 f.] and in the territory of Rus'. [33: 309]

With the deepening of the social division of labour between peasants and craftsmen from the mid-10th century onwards, local trading towns emerged alongside the long-distance trading towns as a result of the growth in the local production of goods, which served local trade and at the same time contributed to the intensification of long-distance trade. The settlements of merchants and craftsmen at the seats of the feudal lords gave rise to early urban settlements, which differed from the earlier long-distance trading settlements in that they had a higher proportion of craftsmen and were more closely linked to the surrounding area. In any case, there had never been "pure" long-distance traders' settlements before; craftsmen had always been to be found in them. [29: 248] The development of early urban settlement complexes prepared the ground economically for the formation of towns. The communal movement that began in the mid-11th century then gave rise to the autonomous urban community and the bourgeoisie as a special class of feudal society. The political progress of this movement had a stimulating effect on economic development. Whereas at the beginning of the 12th century there were around 50 - mostly episcopal - towns in Germany, by the turn of the 13th and 14th centuries their number had grown to around 3,500 towns of all sizes. [48: 53, 62 ff., 258] This created a tiered system that ranged from the large export and long-distance trading towns to production and market centers of regional importance and small local markets. While the primary basis of urban development was the separation of artisanal from commercial production, the intensification of trade contributed significantly to the flourishing of cities.

In the period of the full development of feudalism and urbanism (from the middle of the 11th to the beginning of the 14th century), trade also underwent multiple changes in interaction with the upswing in production and urbanism. The intensification of long-distance trade was based on a more pronounced regional specialization of urban commercial production. In the North Sea region, this occurred earliest in northern France, Flanders and along the Meuse and Rhine, where in the cities - in some cases alongside metalworking - a highly specialized cloth production, designed from the outset for exchange over wide areas, flourished. [1: 16 ff.] [14: 15 ff.] Metalworking dominated on the Lower Rhine, with Cologne as its center, and in neighboring Westphalia. Wine continued to be an important export from the Rhine region. On the Upper Rhine and the upper Danube, on the other hand, areas of intensive linen production began to develop. In the 12th century, the Frisians disappeared for good as middlemen, while Flemish and German merchants activated their own trade to England, the Baltic Sea, Kiev and Italy. A trading house of the Cologne merchants in London, the "Gildehalle", has been known since 1157. In the 12th and 13th centuries, the Champagne trade fairs became the most important transshipment center for goods traffic between Italy and northwestern Europe. In four neighboring towns - Troyes, Bar sur Aube, Provins and Lagny - six trade fairs were held every year at the same time, so that

trade was only suspended for a few weeks. The political neutrality of Champagne and a clever policy ensured optimal conditions for the exchange of goods for merchants. As a result, merchants from Italy, Spain, Flanders, France and Germany flocked here in large numbers. In their nature, the Champagne fairs became a model for all contemporary and later fairs. [16: 75] [40: 110 ff., 156 ff., 351]

Byzantium had lost its former monopoly position in Mediterranean trade as a result of the Crusades. [4: 173 ff.] The merchants of the Italian, Provençal and Catalan cities had come into direct contact with the sellers of Oriental goods. [50: 184 ff.] At the same time, Upper German merchants began to seek trade with Italy, while there is evidence of Italians on the Lower Rhine around 1200, and even earlier in Regensburg. In the following period, exchanges were concentrated mainly in Genoa and Venice. The house of German merchants in Venice, the "Fondaco dei Tedeschi", has been known since 1228. Venice had a strict guest policy and reserved all trade for its citizens. It also did not allow the Germans out onto the Mediterranean. In return, however, it renounced all proprietary trade by its merchants in Germany. Genoa, on the other hand, allowed the overseas export of German goods by German merchants and thus became an important place for trade with Spain and Portugal. Mediterranean imports always remained luxury goods for the exclusive use of the upper classes, while linen, iron, copper and precious metals were exported from Germany via the Alpine passes. In Eastern Europe, Kiev's former importance was in decline from the middle of the 12th century, since the Crusades had established a direct link between the Orient and Western Europe and the Italian trading colonies on the Black and Azov Seas (Kaffa, Tana, etc.) had taken over the trade in the goods previously traded in Kiev. After the destruction of Kiev by the Mongols in 1240, Lemberg (L'vov), founded in 1250, succeeded it in the south [25: 179], while in northern Eastern Europe the role of Novgorod, Smolensk, Polotsk and Pskov grew. [33: 292, 322 ff.]

A similarly historically momentous change took place in the Baltic Sea region in connection with the second stage of feudal expansion to the east. With the re-founding of Lübeck in 1159, German merchants gained direct access to the Baltic Sea. They followed in the footsteps of Scandinavian and Slavic traders via Gotland and established their own branch, the "Peterhof", in Novgorod before 1184. [12] [13: 86 ff.] With the founding of Riga in 1201-1211, they gained a foothold on the Dvina estuary. They opened up trade with Sweden and a little later also with Norway. The German merchants soon gained supremacy in the Baltic Sea, on whose eastern and southern coasts a chain of German or predominantly German-populated port cities developed by the middle of the 13th century. The availability of the products of the Baltic region (furs, amber, wax, pitch, tar, ash, wood, flax, fish, and small quantities of grain and grain products: Flour, malt, beer) made it possible for the Baltic merchants, who had joined together in a merchants' Hanseatic League, to oust their Flemish competitors from trade with northern Germany and expand their active trade via Lübeck and Hamburg to Flanders and England. Finally, at the beginning of the 13th century, they were able to become involved in the export of wool from England to Flanders. [19] The most important return cargo from the west was high-quality Flemish cloth, as well as metal products, Spanish, French and Rhine wines. From Lüneburg Sahne, which produced around 300,000 dt of salt annually in the mid-14th century [49: 1 ff.], they exported the salt that was vital for northern and eastern Europe. The grain, flour and beer supplies from Mecklenburg and Pomerania became indispensable for feeding the Norwegian population. In possession of the Lüneburg salt, they organized the catching and processing of herring off Rügen and Skåne, which was traded alongside Norway's dried fish as a fasting food as far south as Europe. By the end of the 13th century, the foundations of the Hanseatic trading system had been laid, which remained a system of intermediate trade despite all later changes. Greater capital strength, technical superiority in business organization and shipbuilding and the exploitation of the favourable geographical location of their [567] cities allowed the Hanse merchants to become intermediaries in the exchange of goods between two large production areas, the industrially developed west and the agrarian east of Europe. The type of ship they introduced to shipping

of the cog allowed the profitable transportation of bulk goods, which significantly intensified the tendency towards an increase in trade volume and the transition to bulk trade that had been apparent in long-distance trade since the 11th century. [37: 72 ff., 142 ff.] [51: 29]

Direct trade between Upper Germany and Italy, the simultaneous connection of Baltic trade to north-western European trade and the trend towards mass trade - all these factors led to the decline of the Champagne fairs as the central trading center in western Europe at the end of the 13th/beginning of the 14th century. In addition, at the end of the 13th century, the Italian maritime cities also began to use the sea route around Gibraltar to the northwest. The transfer of Champagne to France in 1285 and the resulting involvement in France's wars [16: 148] [33: 344 f.] accelerated this trend, which had already begun in the economic sphere. From the beginning of the 13th century, Bruges became the point of union for Mediterranean, Spanish-Portuguese and northern European maritime trade, to which the forced stack for English wool exports was also transferred from 1313. With around 50,000 permanent inhabitants, the city rose to become one of the largest cities in Europe at the turn of the 13th and 14th centuries [9: 174], where almost all European long-distance trade goods could be obtained. [58: 419/1] As at the fairs, trade between the guests was free; the Flemish merchants were content with selling the country's products and playing the lucrative role of brokers and innkeepers.

The merchants of southern and western Germany also benefited from this development as a result of the increasing transit trade between Italy and Flanders by land. Overall, German merchants had gained a very advantageous position as intermediaries in the 14th century. With the simultaneous densification of domestic trade, they penetrated deep into the countryside, which was dominated by feudal production conditions, with their goods via the medium-sized and small towns and thus intensified the commodity-money relationships. Nevertheless, no market grouped around a fixed trading center developed in Germany. Instead, Germany remained divided into three large-scale economic areas - the Hanseatic, the Upper German and the Rhine-Meuse-Moselle regions - which were structured differently in terms of their production profiles and had diverging interests due to their ties to international trade. In addition, the political disunity of the Roman-German Empire had a negative impact on trade. [46: 31 ff.]

In the period of fully developed feudalism under the conditions of intensified commodity-money relations (14th/15th century), urban commodity production, trade and thus the cities themselves flourished. In the north, the transition from the merchant to the city Hanseatic League, which began in the middle of the 13th century, was completed at the end of the 13th century. The representation of the interests of the Low German merchants abroad was finally transferred to the cities, which soon brought the Hanseatic offices in Novgorod, Bergen, Bruges and London under their control. The first general Hansa Convention in Lübeck in 1356 marked the end of the development of the Hanseatic League into a league of cities. The League acted "as a specific form of organization of commercial capital and as an instrument of the ruling class in the Hanseatic cities", the merchant patriciate. [6: 1] [37: 156] [38]

In the 14th century, the Hanseatic League became the dominant trading power in the North Sea and Baltic region. This development was accompanied by changes within the [568] Hanseatic trading system itself, which began in the 14th century and came to full fruition in the 15th century. The focus of grain exports shifted eastwards to the mouth of the Vistula, where Gdansk became the leading bulk goods export port in the Baltic region from the beginning of the 15th century, thus joining Lübeck in economic importance. The annexation of western Prussia to the Kingdom of Poland in 1454 opened up a vast trading hinterland for Gdansk, into which the Vistula River reached far to the south as a waterway. Also at the end of the 14th century, the import of Baien salt from the salt marshes on the Portuguese and French Atlantic coast via the direct sea route through the Sound into the Baltic Sea began. In this way, the Hanseatic ships gained a profitable cargo for the return journey to the east to supplement the goods from the west, which took up little cargo space.

z. This partly made the previous ballast voyages in this direction superfluous. However, the increase in bulk goods traffic also led to an increase in trade through the Sound and Kattegat, as these goods could not be transported overland via Lübeck-Hamburg. However, the "Umlandfahrt" bypassed

Lübeck and

its intermediate trade. Although the merchants of the Livonian Hanseatic cities were still dependent on Lübeck as an intermediate trading place for their western European trade in the 16th century for reasons of business organization [26: 40 f.], and the Prussian merchants also still preferred to transport their more valuable goods via Lübeck as the less vulnerable route, but the Dan- cians now bought their return cargoes directly in the west and thus increasingly reduced Lübeck from an intermediate trading center to the role of a transit point from the middle of the 15th century. [43: 83 f.]

Above all, however, the Haase had to defend its trading supremacy in the Baltic Sea against western competitors as early as the end of the 14th century. English merchants and ships appeared in the ports of the central and eastern Baltic just as much as those of the Hol- land. Although the Haase was able to drive the English competitors out of the Baltic Sea once again in the 15th century by skillfully exploiting the English-Danish opposition [6: 74 ff.] [31: 101 ff.] [43: 183 ff.], they finally succeeded in breaking into the Hanseatic trading area in the 16th century. The Hanseatic trade was inferior to the competition from the Dutch from the outset, as the latter could rely on their own production base - cloth production, catching and processing of North Sea herring - and on a constantly growing fleet, whose ships were cheaper than the Hanseatic ones. In addition, the Dutch succeeded in achieving a balance with Denmark, which controlled the Sund Passage. The Hanseatic position was also weakened by disagreement within their own camp, as the Prussian and Livonian cities were happy to use the Dutch's cargo space for their bulk trade. The Baltic Sea had been open to the Dutch since 1441, and the Hanseatic trade monopoly was broken. [The general increase in the volume of trade allowed the trade of the individual cities to increase for a long time, but the balance of power between the individual merchant groups shifted. These changes were also responsible for the decline of the Bruges Staple from the 15th century onwards. Bruges lost its pre-eminent position in the trade of the Dutch cities; it was succeeded by Antwerp. [51: 36]

From the transition from the 14th to the 15th century, the same tendency towards mass trade also had an effect on overland trade, where the large cities were dependent on long-distance deliveries to cover their food requirements. For example, Germany's additional meat requirements were met by driving large herds of cattle along the roads from Greater Poland, Hungary, the Black Sea regions and Jutland; it was mainly Nuremberg merchants who supplied Central Germany and Franconia in this way. [25: 232 f.] In domestic trade, the [569] trade fair of Frankfurt am Main gained outstanding importance in the 15th century, which the city owed to its geographically favorable location at the crossroads of the Main and Rhine rivers and a trade policy that was more generous than that of its rival Mainz. At the same time, the merchants of Nuremberg, supported by an almost monopoly position in the production of metal goods, penetrated into the hinterland of the Hanseatic maritime cities in Poland, Prussia and Russia. This created a land trade route in east-west trade that competed fiercely with the Hanseatic sea trade route, the growth of which was further accelerated by the capture of Novgorod and the closure of the Hanseatic trading post there by the Grand Duke of Moscow in 1478-1496. Leipzig subsequently owed its pre-eminent position as a trade fair city to the increase in overland trade, while Frankfurt am Main was overtaken by Augsburg in the 16th century. "The era of Antwerp, Augsburg and Leipzig followed that of Bruges, Frankfurt and Lübeck." [11: 194] [51: 37]

The aforementioned division of Germany into large economic areas in no way meant that there were no or only sporadic relations between them. At the beginning of the 15th century, Hanseatic merchants were already trying to assert themselves on the Venetian market. Conversely, trade relations between, for example, Frankfurt am Main and Nuremberg on the one hand and Lübeck on the other were already active in the 14th century and became permanent in the 15th century. [32: 238 ff., 288 ff.]

As in northern Europe, the balance of power between trading partners and their position changed considerably in the Mediterranean region. After the Arab and Byzantine trading monopoly was broken by the Crusades, the "Levant trade" became an integral part of European trade and commerce thanks to the activities of Italian, Provençal and Catalan merchants.

economic life. In the Mediterranean, the merchants of the northern Italian city pubs of Pisa, Genoa and Venice, among others, engaged in an ongoing and mercilessly fierce competitive struggle. In 1204, the Venetians had managed to direct the crusader army against Byzantium and therefore subsequently supported the Latin Empire. Genoa, on the other hand, lent its support to the Byzantine Empire and was therefore able to strengthen its position during its restoration in 1261, so that it was able to eliminate Pisa as a competitor in 1284 as a result of a trade war. The battle between Genoa and Venice, which ruled the Adriatic, now flared up all the more fiercely. After decades of warfare, the naval battle of Chioggia in 1379 enabled Venice to oust the Genoese from the eastern Mediterranean, where it effectively held a monopoly until the expansion of the Ottoman Empire (conquest of Constantinople in 1453) created the "Turkish barrier", which forced the Spanish and Portuguese to search for a direct sea route to India, with all the consequences this had for the European economy in the 16th century. This had all the consequences for the European economy in the 16th century.

In the struggle for markets and trading territories in the Middle Ages, a whole range of trade policy measures were developed, which, with the increasing weakness of central power in Germany, were primarily handled by the towns and town federations themselves or by the territorial lords. The *Bannmeilenrecht*, which secured the city a limited area of economic activity, gave rise to the *Stapel- und Niederlagsrecht*. In the seaside towns at the mouths of the great rivers, this took the form of compulsory port rights. The right to stack and lay down goods forced foreign merchants into the town's market and, in particular, prevented them from advancing onto the flat land. The staple right could be absolute, i.e. prohibit the foreigner from continuing his journey at all, or relative, i.e. prescribe the offer of goods for a prescribed period of time, after which the foreigner was permitted to continue his journey with the goods he had not purchased. It could be total or partial, i.e. cover all or only certain goods. The next step was the guest law, i.e. the prohibition of trade between foreigners; its application was intended to enable local merchants to engage in relatively effortless intermediate trade. Staple and guest law were generally applied together, but Bruges, for example, practiced a strict staple obligation but allowed guest-guest trade. The fair cities owed their importance in part to the fact that guest trade was generally free during the fair period. With differentiated customs duties for merchants offering or carrying out trade, an effective stacking policy could be pursued even without a formal ban. [8] The feudal state authorities were generally only interested in the possibility of levying customs duties on a forced route. In order to attract certain groups of merchants into the country, they were granted privileges (remission or reduction of customs duties, special legal protection up to legal extraterritoriality, etc.). Conversely, the merchants also made the granting of such privileges and compliance with them a precondition. The cities responded to infringements against their merchants with counter-arrests (confiscation of goods as reprisals) or with boycott measures, the trade embargo, which was frequently applied by the Haase in particular. However, this was a very double-edged weapon, as a total embargo was difficult to implement. In battles over trading territories and markets, brutal force was often used, even to the point of resorting to trade warfare. This method was used by the northern Italian cities against each other as well as by the Hanseatic, Dutch, English, French and Spanish in the struggle for maritime and commercial supremacy on the Atlantic coast, in the Channel and in the North and Baltic Seas. [6] [37]

[42] [43] The naval wars were rarely fought as naval wars, but mostly as privateer wars, i.e. by means of legalized sea robbery. Such privateer wars could, as in 1468-1474, turn into triangular wars and degenerate into a battle of all against all. In principle, therefore, there was no clear distinction between merchant ships and warships in maritime trade; merchants traveling overland also secured themselves by forming groups and recruiting armed companions. The right of passage exercised by the territorial lords was not very effective and had become a mere pretext for levying taxes.

It is possible to obtain information - mostly from customs registers - about the turnover of trade in feudalism, but this is burdened with a high number of unreported cases. It is not possible to compare the

values with current turnover levels, as all the prerequisites for this are missing. [9: 268] Around 1295, 15,000 tons of goods passed through the Linz Danube customs annually. [2: 21] In the late Middle Ages, 1,250 tons of goods are said to have been transported annually over the St. Gotthard Pass. [40: 722] Around 90,000 tons of herring were imported to Lübeck in one year in 1368/69 [22: 59], and in 1492-1494 Lübeck's Baltic Sea trade (excluding grain) reached a turnover of almost 2 million marks in Lübeck [43: 159]; the herring export of the Hanseatic seaside towns from Scania reached a level of around 2 million marks in 1494.

48.000 t. [36: 111] In 1426-1435, Reval imported an annual average of 3,089 loads of salt (= around 4,300 tons). [35: Tab. VIII] Considering the limited means of transportation, considerable quantities of goods were handled over large areas.

The growth in the volume of trade interacted with a fundamental change in commercial practice, the transition to writing and its consequences. Trade was probably written down in the 10th century for Venice [30: 22] and in the 13th century for Germany. The merchant no longer accompanied his goods himself, but made written arrangements for buying and selling based on his knowledge of local conditions and the news he received by letter - "newspapers" - about the market situation. Servants or agents carried out his orders

[571]. Writing also made it possible to use credit on a larger scale. The merchant worked with business letters, account books and deeds. [32: 217 ff.] Promises of payment and money transfers were made with the help of entries in the town register and bills of exchange (promissory notes or drawn bills of exchange - "Tratten"). [18: 330 ff.] "Book money" became a prerequisite for the growth of trade in goods in view of the chronic shortage of money. Trading companies, which are to be distinguished from the cooperatives of traveling merchants of the early period as well as from the later merchant corporations, were dependent on a developed written form. They made it possible to increase profits by using larger amounts of capital, accelerated the circulation of capital and served to reduce risk by participating in several companies. The temporary company, often in the form of a family company, grew out of the occasional company for conducting a business. The "Sendeve" business was a commission business in which goods or money were given to the travelers to buy or sell. [15: 480 ff., 510] Closely related to this was the *societas vera* or *wedderleginge*, into which both permanent and traveling merchants contributed capital; the traveling merchant could dispose of it freely or according to agreement or instruction for mutual profit or loss. This was usually the form in which merchant servants became materially interested in the business. The *compagnia*, *cumpenie* or *mascopei* was a permanent company in which the partners contributed capital and labor and were usually active in different places. [18: 291 ff.] Often arose

"Long-distance mutual trading companies" from the continued mutual commission of two merchants trading in different places. [26: 115 ff.] In the Hanseatic trading area, the number of partners remained small; in contrast, large companies emerged in southern Germany and Italy, such as the "Great Ravensberg Company" (1380-1530), which had company assets of 132,000 florins at the end of the 15th century, maintained 13 branches from Hungary to Spain and the Low Countries and had up to 80 partners, most of whom were actively involved in the company. However, it always remained a pure goods trading company [34], whereas other companies also engaged in money trading and began to invest capital in production.

With the progressive expansion of trade, a strong differentiation of merchants emerged early on. Wholesalers and long-distance traders separated themselves from the grocers, but the boundaries between wholesale and retail trade remained fluid. The grocers included the "Höker" or "Haken", who mostly traded in foodstuffs. There was peddling at all times. The long-distance traders were very differentiated in terms of wealth; there were numerous gradations among them, and only a few long-distance traders succeeded in rising to the thin upper class of the urban patriciate, from which it was also possible in individual cases to rise to the nobility. The decisive factors here were business success and a calculating marriage policy. The long-distance traders, who possessed great fortunes, were the actual representatives of merchant capital, the "historically oldest, free mode of existence of capital" [MEW 25: 337], which provided the vital "social

metabolism' [MEW 25: 293] through the supply of raw materials, the opening up of sales markets, the stimulation of commodity production and the enforcement of commodity-money relations. In the Hanseatic trading area, the connection 'between commercial capital and production did not go beyond the first germinal forms of simple capitalist production in shipbuilding, milling and beer brewing. [6: 24 ff.] The restriction to the sphere of circulation also set the limits for the progressive effect of commercial capital. [In contrast, in Italy, in southern Germany from about [572] 1380 and in Holland in the 15th century, commercial capital began to subjugate producers in important branches of production and to exploit them in the form of publishing, with which commercial capital broke through the guild barriers and developed commercial production for the market, partly outside the cities. In Germany and the Netherlands, this penetration into the production sphere occurred earliest in cloth, linen and barchent production as well as in the metal industry (Nuremberg). In view of the increased demand, the merchants were able to exploit their power of disposal over the raw materials and the sales opportunities on distant markets and make the independent small producers of goods economically dependent on them. The Fuggers in Augsburg, for example, owed their rise in the 15th century to the profits they made from their activities as cash merchants and publishers, before finally entering the mining business in the last third of the 15th century. The sharp rise in demand for metals from the middle of the 15th century onwards led to increased investment of capital in this sector due to the profit opportunities that now presented themselves, which on the one hand led to a huge increase in production, but on the other to the emergence of capitalist ownership and exploitation relationships. As a result of the high capital investment required, large companies were soon formed in the mining and smelting industry, some of which gained monopoly positions. This enabled the Fuggers to gain a dominant position in Tyrolean and Slovakian mining by the end of the 15th century. Jakob Fugger began in 1487 by granting loans to the Tyrolean sovereign, who was always in need of money, in return for ceding parts of the mining rights. Shortly afterwards, the Fuggers dominated Tyrolean mining "by taking over the ultimately parasitic role of the regal lords and extracting high profits from mining at the expense of the mines and the workers". In 1495, they penetrated the Slovakian copper mining industry through a straw man, the Krakow mining entrepreneur and patrician Johannes Thurzo. [20: 15 ff.]

All the activities of merchant capital were driven by the pursuit of profit. Even in the days of itinerant trade, the merchant was not driven by the "joy of adventure" [25: 92], but by the pursuit of profit. In feudalism, as in all pre-capitalist forms of society, profit was achieved on the basis of the non-equivalent exchange of goods. Commercial profit was "made in the two acts of buying and selling", it was "realized in the last act, the sale". This gave rise to the law of the commercial pursuit of profit: "Buy cheap to sell dear. So not the exchange of equivalents." [MEW 25: 342] With the many disruptive and uncertain factors to which it was exposed, trade had a strongly speculative character. High profits could be accompanied by heavy losses. The current state of research does not allow us to name average profits for certain goods on individual routes. [44: 223 ff.] It is only rarely possible to trace individual transactions through to profit settlement. The figures therefore vary between 6 and 33% profit. [17: IX ff.] [20: 219 ff.] [26: 59 ff.] [27: 335 ff.] [40: CXVII, CXX] The longer-term accounts of the large southern German companies are more reliable: The "Große Ravensberger" averaged 7.5% annually from 1484-1494 and 1500-1514, the Welser achieved up to 8.875% in 1502-1517, and the company of the elder Klaus Schmid in Frankfurt am Main came to 6.37% profit in 1490-1501. [41: 1, 60 f.] [573]

Literature:

1 *Ammann, H.*, in: *Hansische Geschichtsblätter* 79, 1961, p. 1 ff.; 2 *Bastian, F.*, in: *VSWG* 1931, vol. 24, p. 1 ff.; 3 *Clapham, Sir J.*: *A Concise Economic History of Britain*. Cambridge 1951; 4. *Erbstößer, M.*: *Die Kreuzzüge*. Leipzig 1976; 5. *Friccius, W.*, in: *Hansische Geschichtsblätter*. Vol. 57, 1932, Vol. 58, 1933; 6. *Fritze, K.*: *Am Wendepunkt der Hanse*. Berlin 1967; 7. *Ders.* in: *Hansische Studien*. Vol. 3, Weimar 1975, p. 15 ff.; 8. *Gönnenwein, O.* : *Das Stapel- und Niederlagsrecht*. Weimar

1939; 9. *Häpke, R.*: Brügges Entwicklung zum mittelalterlichen Weltmarkt. Berlin 1908; 10. *Jankuhn, H.*, in: *Blätter für deutsche Landesgeschichte*. Vol. 106, 1970, p. 1 ff.; 11. *Jeannin, P.*, in: VSWG 1956, Vol. 43, p. 193 ff., p. 323 ff.; 12. *Johansen, P.*, in: *Städtewesen und Bürgertum als geschichtsbildende Kräfte*. Lübeck 1959, p. 121 ff.; 13. *Ders.* in: *Acta Visbyensia I*. Visby 1965, p. 85 ff.; 14. *Joris, A.*, in: *Hansische Geschichtsblätter*. Vol. 79, 1961, p. 15 ff.; 15. *Keutgen, F.*, in: VSWG 1906, vol. 4, p. 279 ff., p. 461 ff.; 16. *Köller, H./Töpfer, B.*: Frankreich. Vol. 1, Berlin 1977; 17. *Koppmann, K.*: Johan Tölners Handlungsbuch Rostock 1885; 18. *Kulischer, J.*: Allgemeine Wirtschaftsgeschichte des Mittelalters und der Neuzeit. Vol. 1, Berlin 1954; 19. *Kunze, K.*, in: *Hansische Geschichtsblätter*. 1889, p. 129 ff.; 20. *Laube, A./Steinmetz, M./Vogler, G.*: Illustrierte Geschichte der deutschen frühbürgerlichen Revolution. Berlin 1974; 21. *Lauffer, V.*, in: *Zeitschrift des westpreußischen Geschichtsvereins*. 1894, vol. 33, p. 1 ff.; 22. *Lechner, G.*: Die hansischen Pfundzolllisten des Jahres 1368. Lübeck 1935; 23. *Leciejewicz, L.*, in: *Acta Visbyensia I*. Visby 1965, p. 47 ff.; 24. *Lesnikov, M. P.*, in: *Hansische Studien*. Berlin 1961, p. 219 ff.; 25. *Lütge, F.*: Deutsche Sozial- und Wirtschaftsgeschichte. Berlin/Heidelberg/New York 1966; 26. *Mickwitz, G.*: Aus Revaler Handelsbüchern. Helsingfors 1938; 27. *Mottek, H.*: Wirtschaftsgeschichte Deutschlands. Vol. 1, Berlin 1974; 29. *Olechnowicz, K.*: Handel und Seeschifffahrt der späten Hanse. Weimar 1965; 30. *Pirenne, H.*: Sozial- und Wirtschaftsgeschichte Europas im Mittelalter. Munich 1974; 31. *Postan, M. M./Power, E.*, in: *Studies in English Trade in the Fifteenth Century*. London 1951, p. 91 ff.; 32. *Rörig, F.*: Wirtschaftskräfte im Mittelalter. Weimar 1959; 33. *Rybakow, B. A.*, in: *Geschichte der Kultur der alten Rus'*. Berlin 1959, p. 289 ff.; 34. *Samsonowicz, H.*, in: *Hansische Studien*. Berlin 1961, p. 335 ff.; 35. *Saß, K.-H.*: Hansischer Einfuhrhandel in Reval um 1430. Marburg 1955; 36. *Schäfer, D.*: Das Buch des lübeckischen Vogtes auf Schonen. Lübeck 1927; 37. *Schildhauer, J./Fritze, K./Stark, W.*: Die Hanse. Berlin 1976; 38. *Schildhauer, J.*, in: *Hansische Studien III*. Weimar 1975, p. 149 ff.; 39. *Schlesinger, W.*, in: *Die Stadt des Mittelalters*. Bd. 1, Darmstadt 1969, p. 239 ff.; 40. *Schulte, A.*: Geschichte des mittelalterlichen Handels und Verkehrs zwischen Westdeutschland und Italien im Ausschluß von Venedig. Vol. 1, Leipzig 1900; 41. *Ders.*: Geschichte der Großen Ravensberger Gesellschaft. Vol. 1-3, Stuttgart/Berlin 1923; 42. *Spading, K.*: Holland und die Haase. Weimar 1973; 43. *Stark, W.*: Lübeck und Danzig in der zweiten Hälfte des 15. Jahrhunderts. Weimar 1973; 44. *Ders.* in: *Beiträge zur Geschichte des Ostseeraumes*. Greifswald 1975, p. 223 ff.; 45. *Stein, W.*: Handels- und Verkehrsgeschichte der deutschen Kaiserzeit. Berlin 1922; 46. *Stern, L./Voigt, E.*: Deutschland in der Epoche des vollentfalteten Feudalismus von der Mitte des 13. bis zum ausgehenden 15. Jahrhundert. Berlin 1976; 47. *Stieda, W.*: Revaler Zollbücher und -quittungen. Halle 1887; 48. *Töpfer, B./Engel, E.*: Vom staufischen Imperium zum Hausmachtkönigtum. Weimar 1976; 49. *Witthöft, H.*, in: VSWG 1976, vol. 61, p. 1 ff.; 50. *Zöllner, W.*: Geschichte der Kreuzzüge. Berlin 1977; 51. *Atlas zur Geschichte*. Vol. 1, Gotha/Leipzig 1973; 52. *The Cambridge Economic History of Europe*. Vol. 2, Oxford 1952; 53. *History of the USSR*. Vol. 1/1, Berlin 1961; 54. *Handbuch der deutschen Wirtschafts- und Sozialgeschichte*. Vol. 1, Stuttgart 1971; 55. *Historia Pomorza*. [574] Vol. I/1, Poznań 1972; 56. *Class Struggle - Tradition - Socialism*. Berlin 1974; 57. *Monumenta Germaniae Historica*. Capit. I; 58. *Hansisches Urkundenbuch*. Vol. 3, Halle 1887.

Walter Stark

2.4.11. Crafts

Craftsmanship in feudalism is the simple production of goods, characterized by the close connection between the producer and the simple means of production designed for individual handling. As a rule, the craftsman owned the means of production and was personally free. The isolation of producers and their coming together on the market resulted in the typical organizational form of craftsmanship in feudalism, the guild. On the one hand, the guild has the same roots as the peasant community, it is feudal. This is because medieval craftsmanship, due to its close ties between the producer and the small means of production, had a "more or less basic character" [MGr 27], "imitating the organization of the country in the city and its conditions" [MGr 27]. On the other hand, in contrast to the rural community, the guild is an association of free owners. [1: 202]

The development of medieval craftsmanship is closely linked to the progress of agricultural production in the era of the development and consolidation of feudal production methods. The increased productivity and the concentration of the feudal peasants' surplus produce at the feudal estates enabled the second social division of labor, the separation of crafts from agriculture. At the large manors, especially at the royal palaces [27: 50], the bishop's and count's seats and the monasteries, a *Fronhof trade* (goldsmiths, swordsmiths, bakers, coopers and weavers) had developed by the 11th century. [16: 105 ff.] [29: 122 ff., 202 f.] In addition to this Fronhof trade, there were hardly any actual village trades in the early feudal period. Not only the manufacture of clothing and tools and the building of houses, but also ironworking were still part of the peasant household economy. The Fronhof trade became an essential root of the development of the town (see 2.4.6.).

Urban crafts developed from the 11th to the 13th century in close connection with the expansion of long-distance trade. The craft developed particularly early and rapidly in Flanders, where high-quality cloth was produced for export [7: 88 ff.], and in the French cities, which were linked to the long-distance trade between the commercial centers in northern Italy and Flanders. Extensive cloth and linen production developed in the fair towns of Champagne. [25: 74] But even in the pre-Mongol Rus' of the 12th century, there was a developed craft that achieved particular skill in metalworking. [26: 125 ff.] However, the crafts of the High Middle Ages were not yet characterized by export production, but by work for the local market.

The rapid professional *specialization* is an indication of the numerical growth and increasing quality of craftsmanship. At the end of the 13th century, there were more than 4,000 craftsmen in Paris, the center of the French national kingdom, who belonged to about 100 different trades. [25: 75] Crafts in the small towns of Rus' were divided into around 30 different trades, while in the larger towns there were at least 60. [26: 128 f.] Even the Wendish Hanseatic cities showed [575] a few decades after their foundation the richly structured picture of the guild trades that had been developing on the Rhine and Danube for two centuries. Rostock already had 77 different trades in 1290. [17: 53] In Stralsund there were already more than 60 trades in 1284. [3: 146] In Lübeck at the end of the 14th century there were around 1,350 master craftsmen working in more than 60 trades, of which the shoemakers, butchers, blacksmiths and tailors were the most numerous with 100 or more members each. [3: 144] Particularly striking is the progressive specialization of the blacksmiths, whose three large groups, the rough-

The blacksmiths trained numerous individual trades. The weaponsmiths, for example, were divided into platers, sword-sweepers, cap smiths, tinsmiths and others. The training of 60 to 100 different trades was characteristic of the medium-sized and large, fully developed trade and craft towns of the Middle Ages.

The proportion of craftsmen in the population of the towns must have been a quarter to a third. The largest occupational groups were generally the food and clothing trades as well as blacksmithing, i.e. the basic trades that produced for the local market, supplemented by the building trades. [3: 144 ff.] In the export trade cities, the proportions shifted accordingly. In Nuremberg in 1363, there were 20 metalworking professions among the 50 groups of craftsmen, comprising 28% of the 1,217 master craftsmen. [9: 164] In the trading and maritime cities of the Baltic region, the auxiliary trades of trade, coopers, blacksmiths and ship carpenters, played a greater role. [3: 144]

From the second half of the 14th century, export production became more important, especially in the textile trade; starting in the cities of Flanders, southern France and northern Italy, new weaving and dyeing techniques spread to the Swabian, Rhenish and Saxon cities. This was associated with two new trends: Firstly, publishing relations spread; for under the conditions of simple commodity production, export production was only possible in the long term through subjugation to merchant capital. The Nuremberg metal industry and the Swabian perch weaving industry, the latter already because of the procurement of raw materials, are early examples of the

publishing house in Central Europe. [29: 337] On the other hand, export production migrated to the lowlands from the 14th century onwards. This development also started in Flanders and spread to Swabia and Saxony. Urban cloth production in Flanders and Champagne declined at the same time. [7: 90 ff.] [25: 142] [5: 16 ff.] Export production thus had the tendency from the outset to go beyond the framework of simple goods production and to call the medieval guild trade into question.

In the export trade regions, *village crafts* developed as early as the late Middle Ages, culminating in the formation of food crafts (bakers, butchers), while elsewhere the formation of village crafts progressed very slowly under the predominance of urban development. As a result of medieval development, blacksmiths and millers were the only generally widespread village craftsmen. [21]

The flourishing of medieval craftsmanship is inextricably linked to the *development of guilds*. Guild corporations already represented the colleges of craftsmen in Byzantium, which reached their strongest form in the 10th century. After the 11th century, the guilds seem to have disappeared from the economic life of Constantinople and given way to state supervision; for the provincial cities they are still attested until the 14th century. [10: 37 f.] The Western and Central European guilds originated in the [576] 12th and 13th centuries. They were the fruit of the development of crafts in the medieval cities and the successful participation of craftsmen in the communal movement. They were also cooperative associations of producers for the regulation of their economic, social and political interests and also an instrument of state trade policy. The element of state supervision was stronger in France, which was striving towards a centralized state [25: 74 f.]; in the territory of the Empire it was left more to the municipal councils. The oldest surviving guild privileges in German cities are those of the Worms fishmongers' guild from 1106/07, i.e. not an actual craftsmen's privilege, the Würzburg shoemakers' guild from 1128 and the Cologne bed weavers' brotherhood from 1149 [18: 291]. In Magdeburg, the first guild privileges have been preserved for the united tanners and shoemakers (after 1152) and for the signwriters from 1197 [28: 33].

In the course of the 13th and 14th centuries, the more important trades in the larger and medium-sized towns formed their own guilds. However, there was no congruence between guilds and individual trades, so the number of guilds is not a measure of the level of specialization. In Cologne there were 42 guilds from 1396, 100 were mentioned for Paris and Vienna; in Lindau there were only 8 guilds, each of which covered several trades. [18: 292] The new trades of bookmaking and mechanics that emerged at the end of the Middle Ages did not form guilds. The term guild was also extended to the fundamentally different associations of merchants, then separated from the craftsmen's associations as "gentlemen's guilds" or "large guilds". This happened above all in the central and upper German export trade towns, where the boundaries between crafts and long-distance trade were more fluid.

The main purpose of the guild was to protect the small producers of goods, because "property here consisted mainly in the work of each individual. The necessity of association against the associated robber nobility, the need for common market halls at a time when the industrialist was also a merchant, the growing competition of the runaway serfs flocking to the flourishing cities, the feudal organization of the whole country brought about the guilds." [MEW 3: 24 f.] The economic purpose of the guild was therefore primarily to limit competition, to counteract the lawful differentiation of simple commodity producers and thus to preserve the existence of as many members as possible. From the very beginning, therefore, the guild was characterized by the restriction of access and the prohibition of any trade outside the guild. [16: vol. 1, 193 f.] The *guild obligation*, the exclusive right of guild members to trade and the exclusion of outsiders from selling the corresponding craft goods on the local market outside the fairs, is already part of the oldest guild privileges. [18: 291] It was not until the 14th/15th century that guild regulations limiting the conditions of handicraft production were handed down: The limitation of the number of apprentices and journeymen of a

The number of master craftsmen was generally limited to two or three, the prohibition of uniting more than one workshop in the hands of one master craftsman and the prohibition of making master craftsmen dependent on one another. It is only from the late Middle Ages that it is known that guilds were "closed", i.e. that the number of masters of a craft in a town was given a rigid limit. [16: Vol. 1, 192] [203]

All of the production restrictions should not be seen as a sign of the decline of the medieval guild system, but rather as part of its essence. The restrictions certainly stretched further back into the early days of the guilds than their written form. This fixation can be seen as an expression of the growing difficulties in enforcing the guild monopoly in the face of the spread of simple goods production and the arrival of new elements. The guild organization was in full agreement with the developmental conditions of the productive forces as long as simple commodity production was absolutely dominant, as long as there were no significant germs of the capitalist mode of production whose development was hindered by the guild. Such a situation existed in Germany until the 15th century. The guilds facilitated the full training and specialization of the trades and promoted the progressive division of labour between the professions. They ensured the transfer and exchange of production experience through their regulations on apprenticeship training and the journeymen's period of travel, and they ensured a high level of craftsmanship through extensive quality regulations.

The guilds could only counteract the *social differentiation* of medieval crafts, they could not eliminate it. This differentiation was already great in the 14th century. Significant differences in wealth existed both between the guilds (the representatives of the food and precious metal processing trades were on average wealthier than those of the mass trades of the clothing trades) and within the individual trades. The differences in wealth were smaller in the small towns, where the trades were generally coupled with agriculture, than in the medium-sized and large towns; they were particularly large in the export trade towns.

For the Mecklenburg seaside towns without export trades, a considerable differentiation of wealth in seven major trades (bakers, blacksmiths, tanners, wool weavers, shoemakers, coopers and tailors) was documented in the years 1382-1385. The wealthiest craftsmen in these trades were on a par with the long-distance merchants in terms of their wealth, while the poorest belonged to the lower classes in terms of their income. [14: 1193] One can assume a progressive intensification of this social differentiation during the 15th century, as the proportion of the lower tax groups increased and thus an ever larger proportion of the craftsmen sank into these poorest sections of the urban population. The proportion of the "middle class", which still included the majority of the guild trades around 1400, fell from around two thirds to one third of taxpayers. [3: 142] [20: 348] The stark social differentiation of the export trade towns is shown by the tax survey of 1475 in the weaving town of Augsburg. Here, two thirds of all taxpayers were "Hab- nitse", including 107 beggars, 151 day laborers and 2,700 craftsmen. [27: 42] [13: 176]

Thus, the guild craftsmen as a whole can only be identified to a very limited extent and, since the 15th century, no longer with a stable urban middle class, as Maschke has recently done. [15: 11] The craftsmen belonging to the lower class generally worked without journeymen and apprentices, did not own their workshops but rented them and earned an income that was roughly equivalent to a journeyman's wage. The wealthiest craftsmen at the top of the guild trade worked with several journeymen, owned real estate beyond their own workshop (garden and farmland, houses) and often aspired to become merchants. The larger production facilities, such as fulling mills, mills and bakehouses, were generally not the individual property of craftsmen, but the property of merchants, often also municipal or corporate property. [4: 334]

In the transition from feudalism to capitalism, craftsmen were on the one hand in conflict with and defensive against the new forms of capitalist [578] production, publishing and

Manufacture (see 2.4.8.). The ruin and absorption of more and more craft businesses by the manufactory and the dissolution of the old guild organization were a historically necessary process that indicated the basic direction of social development. "The guild organization, as much as its specificity, isolation and training of the trades belonged to the material conditions of existence of the manufactory period, therefore excluded the manufactory-like division of labour. On the whole, the worker and his means of production remained bound together, like a snail to its shell, and thus the first foundation of manufacture, the independence of the means of production as capital in relation to the worker, was lacking." [MEW 23: 380] On the other hand, the craft sector continued to grow in numbers during the manufactory period. It remained the most widespread form of industrial production, even if it was no longer the historically dominant one. The manufactory "culminated as an economic work of art on the broad basis of urban handicraft and rural domestic industry". [MEW 23: 390] Thus, at the end of the feudal age in Prussia in 1802, less than 200,000 workers were employed in capitalist industrial enterprises ("factories"), compared to 480,000 in the crafts sector [6: 44 ff.] [11: 39].

Both processes, the development of capitalist forms in trade and the further growth of simple commodity production, were based on the increasing formation of an internal market for trade products. The development of the internal market was in turn strongly stimulated by this commercial development and by population growth from the 15th century onwards.

The relationship between the crafts on the one hand and publishing and manufacturing on the other was characterized not only by competition, but also by a certain delimitation of the areas of work. Publishing expanded primarily in areas where mass-produced goods were manufactured for export, while the local market remained largely intact for the crafts, at least in the early stages of manufactory development. The manufactory was initially oriented towards the production of luxury goods, and under the rule of absolutism it then focused to a large extent on mass production for the needs of the army. It was not until the 18th century that mass production by publishers and manufacturers took on such a scale and covered such a variety of goods that it became serious competition for the crafts. This primarily affected weaving, tanning and the metalworking trades. [16: Vol. 2, 138]

During the transitional period, the growth of simple goods production largely took place outside the guilds. In many places, the number of "bunglers" or "Bönhasen" - craftsmen working outside the guilds - and freemasters, who worked outside the guilds with the permission of the authorities, reached the number of guild masters. [22: 238] [16: 2, 141 f.] While the guilds tightened guild coercion and guild restrictions to the utmost, their realization was less and less successful. The process of economic development progressed with elementary force over the attempts to restore the "intact world" of simple commodity production of the Middle Ages. The regressive character of guild politics was most evident in the fight against new, revolutionary instruments of production, such as the ribbon mill. [16: 272]

The *guild policy of absolutism* (see 2.4.7.) attempted to curtail the worst excesses of the guild system through state regulation and reorganization of the guilds, insofar as they hindered absolutist trade and population policy. The main aim of this policy, however, was to eliminate the cooperative character of the craftsmen's organizations and to place them entirely under state supervision [579]. The suppressive function of this guild policy becomes particularly clear in the action taken against the journeymen's associations. The Imperial Law of 1731, which was primarily driven by Brandenburg-Prussia, had resulted in the prohibition of journeymen's associations and the introduction of

"Kundschaften" (journeymen's passports) was one of his key points. His decree was a reaction to the social unrest of the 1920s in Vienna, Mainz, Stuttgart, Würzburg and Augsburg. [8: 132 ff.] [12: 74 f.]

The growth in the number of craftsmen during the transitional period took place primarily in the countryside. At the end of the transitional period, *rural craftsmanship* surpassed urban craftsmanship in terms of numbers, but lagged considerably behind the latter in terms of

occupational differentiation. [23: 43 ff.] The social division of labor between agriculture and crafts reached new levels.

Quality levels. Clothing manufacture (weavers, tailors, shoemakers), the production of tools and household goods (wheelwrights, carpenters, coopers), house building (carpenters, bricklayers) and food production (bakers, butchers) were successively outsourced from the peasant household economy. The development of the rural trades was closely linked to the formation of the internal market and was dependent on the degree of decomposition of feudal production conditions. The denser the population, the more advanced the social differentiation of the rural population, i.e. the greater the proportion of rural poverty and the less the peasant population was burdened by labor rents, the higher the density of rural crafts in a region. As these basic conditions were essentially dependent on the type of late feudal production conditions in agriculture, the division into manorial and landed areas was directly reflected in differences in the density of the rural economy.

The rural crafts developed particularly strongly in south-western Germany, Westphalia and Saxony-Thuringia, where 50-70 master craftsmen worked for every 1,000 rural inhabitants in the 18th century. They created the social basis for the spread of decentralized manufacturing. However, the actual degree to which the flat countryside was penetrated by capitalist forms of exploitation depended on the level of development of the predominantly urban commercial and manufacturing bourgeoisie. With the exception of Silesia and Upper Lusatia, the density of rural craftsmen in the 18th century in the areas of the East Elbe estates remained below 25 masters per 1,000 inhabitants.

The rural craftsmen of the transitional period were predominantly employed full-time in the skilled trades; commercial secondary production was of great importance, especially in spinning; as a rule, they were personally free and guilded to almost the same extent as the town craftsmen. Between the 16th and 18th centuries, rural craftsmen developed into a special social class within the rural poor. [21]

The growth of simple commercial goods production in urban and rural areas consisted of an increase in the number of producers and businesses, but not in the size of the businesses. A decline can be observed here. At the end of the transitional period, the number of master craftsmen was generally much higher than the number of journeymen, and the sole master dominated. Exceptions were the wealthier food trades and - for technological reasons - the building trades. [11: 60] The incomes of the majority of all master craftsmen corresponded in scale to the wages of journeymen and the wages of qualified manufactory workers. At the end of the 18th century, they were between 100 and 200 talers a year and thus just about covered the minimum subsistence level. [19: 65 ff.] Only in small farming towns were conditions apparently more favorable. [24: 162 ff.]

[580] Thus, at the end of the 18th century, the sharp increase in artisanal producers, their ever sharper confrontation with manufactories and publishers, and the alignment of the social situation of the majority of artisans with that of wage labourers prepared the ground for the final dissolution of the old industrial relations of feudalism, which were determined by simple commodity production and guild organization, for their replacement by industrial capitalism.

Literature:

1 *Berthold, B./Engel, E./Laube, A.*, in: ZfG 1973 (XXI), H. 2, p. 196 ff.; 2 *Blendinger, F.*, in: Städtische Mittelschichten. Proceedings of the VIII. Arbeitstagung des Arbeitskreises für südwestdeutsche Stadtgeschichtsforschung, 1969. Stuttgart 1972, p. 32 ff.; 3. *Fritte, K.*: Am Wendepunkt der Hanse. Berlin 1967; 4. *Ders.* in: ZfG 1974 (XXII), H. 3, p. 331 ff.; 5. *Heitz, G.*: Ländliche Leinenproduktion in Sachsen 1470 bis 1555. Berlin 1961; 6. *Hoffmann, H.*: Handwerk und Manufaktur in Preußen 1769. Berlin 1969; 7. *v. Houtte, J.*, in: Wirtschaft, Geschichte und Wirtschaftsgeschichte. Festschrift for the 65th birthday of Fr. Lütge. Stuttgart 1966, p. 88 ff.; 8. *Jahn, G.*: Zur Gewerbepolitik der deutschen Landesfürsten vom 16. bis zum 18. Jahrhundert. Leipzig 1909; 9. *Jonas, W./Linsbauer, V./Marx, H.*: Die Produktivkräfte in der Geschichte. Vol. 1, Berlin 1969; 10. *Kashdan, A. P.*: Byzanz und seine Kultur. Berlin 1973; 11. *Kaufhold, K. H.*, in: Handwerksgeschichte in neuer Sicht. Göttinger hand- werkswirtschaftliche Studien. Vol. 16, Göttingen 1970, p. 26 ff.; 12. *Krüger, H.*: Zur Geschichte der

Manufakturen und der Manufakturarbeiter in Preußen. Berlin 1958; 13. *Kulischer, J.*: Allgemeine Wirtschaftsgeschichte des Mittelalters und der Neuzeit. 2 vols., Munich/Berlin 1928/29; 14. *Laube, A.*, in: ZfG 1957 (V), H. 6, p. 1181 ff.; 15. *Maschke, E.*, in: Städtische Mittelschichten. Proceedings of the VIII. Workshop of the Working Group for Southwest German City History Research, 1969, Stuttgart 1972, p. 1 ff.; 16. *Mottek, H.*: Wirtschaftsgeschichte Deutschlands. Vol. 1, Berlin 1964; 17. *Olech-nowitz, K.-F.*: Rostock von der Stadtrechtsbestätigung im Jahre 1218 bis zur bürgerlich-demokratischen Revolution von 1848/49. Rostock 1968; 18. *Planitz, H.*: Die deutsche Stadt im Mittelalter. Weimar 1975, 4; 19. *Saalfeld, D.*, in: Wilhelm Abel und Mitarb.: Handwerksgeschichte in neuer Sicht. Göttingen 1970, p. 65 ff.; 20. *Schildhauer, J.*, in: Hansische Studien. Berlin 1961, p. 348 ff; 21. *Schultz, H.*: Landhandwerk und Landgewerbe in der Übergangsepoche zum Kapitalismus. Rostock 1978 (diss.); 22. *Sée, H.*: Französische Wirtschaftsgeschichte. Vol. 1, Jena 1930; 23. *Skalweit, A.*: Das Dorfhandwerk vor Aufhebung des Städtezwanges. Frankfurt/M. 1942; 24. *Steinkamp, A.*: Stadt- und Landhandwerk in Schaumburg-Lippe im 18. und beginnenden 19. Jahrhundert. Rinteln 1970; 25. *Töpfer, B./Köller, H.*: Frankreich. Vol. 1, Berlin 1969; 26. *Widera, B.*, in: JWG 1973, T. I, p. 113 ff.; 27. *Ausgewählte Quellen zur deutschen Geschichte des Mittelalters*. Vol. 31, Berlin (n.d.), No. 22; 28. *Geschichte der Stadt Magdeburg*. Berlin 1975; 29. *Handbuch der deutschen Wirtschafts- und Sozialgeschichte*. Vol. 1, Stuttgart 1971.

Helga Schultz

2.4.12. Colonialism

The violent conquest of foreign countries for the purpose of subjugating and exploiting weaker peoples was more or less carried out by the ruling classes of all exploiting societies. "Colonial politics ... existed even before the latest stage of capitalism, indeed before capitalism itself," wrote Lenin. [LW 22: 264] This statement also applies to the feudal mode of production.

Since the disposal of the main means of production, land, and the number of agrarian producers in feudal society was decisive for the wealth and power of the ruling class, the striving to expand this disposal was an essential cause of the expansionary forces inherent in this society even at a relatively early stage. Although - compared to later capitalist accumulation - the urge to exploit man by man within the feudal mode of production appeared limited by the "extent of the stomach walls" of the feudal lords, it should by no means be underestimated. This formula only means that the drive to increase the appropriation of surplus product was not, as in capitalism, rooted in the sphere of production itself, but above all in the growing consumption needs of the exploiters, which, in addition to consumption in the broadest sense, also included the costs and needs of the numerous feudal feuds and wars. The urge to increase the appropriation of surplus product was evident wherever feudal society developed.

With the emergence of urban centers, the development of long-distance trade and the closer acquaintance with goods and treasures brought from afar or overseas, the desire to take possession of these things or their places of origin by force of arms increased further. Feudal expansion efforts were often reinforced by non-economic driving forces, such as religious motives. Ideological, especially religious, justifications often served to disguise the economic motives behind feudal expansion, or economic, political and ideological causes and motivations combined to form complexes that were difficult to disentangle.

Although there is no definition of colonialism based on the feudal mode of production, an attempt will be made here to differentiate feudal colonialism from the general expansion of feudal powers. We should only speak of feudal colonialism if the subjugated peoples and countries were robbed and plundered for the benefit of foreign feudal exploiters in a way that led to the economic and cultural decline or stagnation of the areas concerned. Not every expansion of feudal societies can therefore be regarded as a colonial conquest. For example, the military successes of the various Arab feudal dynasties and the ruling aristocracy under the banner of the "holy war"

to further and further conquests in the Middle East, later via North Africa to the subjugation of almost the entire Iberian Peninsula and to advances across the Pyrenees. At times, the domain of the Arab dynasty of the Umayyads extended from Central Asia, from the borders of the Chinese Tang Empire, to Narbonne in southern France. It must be emphasized, however, that despite the burdensome exploitation of the subjugated peoples in the various Arab empires, which also led to countless uprisings, admirable cultural developments took place under Arab rule, the results of which are still noticeable today. The Umayyad caliphs, for example, were also quite indifferent to members of other races and religions, as their conversion deprived them of the right to collect taxes on non-Muslims. The latter were often able to occupy high positions in the state. Thus, in the first third of the 9th century, a centrally administered state was formed in Muslim Spain around the court of Córdoba, whose economy and cultural openness were far superior to the rest of Europe.

The particularism that finally asserted itself in the Arab states, the [582] political pressure from within and the onslaught of external conquerors, such as the "Mongol invasion" in the East, the gradual displacement of the Arabs from the Iberian peninsula under the name of the "Reconquista", led to the collapse of the Arab feudal empires. Later, the Arab world was itself subjugated by colonialism, as will be discussed later.

However, feudal colonial rule can also be said to have existed in other parts of Asia. Various Chinese rulers reached far beyond the borders of China proper. Among other things, the Chinese Ming dynasty invaded Vietnam in 1407, where they combined unbearable feudal exploitation with national oppression of the indigenous population. A peasant uprising that broke out in 1418 finally drove out the foreign rulers in 1427.

The aforementioned colonial subjugation of the Arabs took place from 1516, initially mainly by the Turkish Ottomans, who not only conquered the Middle East and large parts of North Africa, but also occupied the entire Balkans in Europe and twice reached as far as Vienna. The Ottoman conquests were much more akin to feudal colonial rule, and the countries and peoples they conquered were subjected to brutal exploitation, economic stagnation and cultural decline. The conquered land was usually assigned to the Turkish warriors by the sultan as a non-inheritable fiefdom (timar). However, the owners of these fiefs then enforced their hereditary status. Turkish feudal-colonial rule over large parts of south-eastern Europe, under which the Christian population was completely without rights and regarded as *rajah*, i.e. herds or cattle, remained in part until the end of the previous century or the beginning of our own, and delayed the capitalist or industrial development of the areas concerned. Bulgaria was only liberated from Turkish rule in 1878, and Western Thrace, Macedonia and Albania in 1912.

Long before this, however, the increasing development of European feudalism, especially Western European feudalism, had also increased its expansiveness. The resulting limitation of the possibilities for exploitation within a given territory also led European feudal society down the path of external expansion into overseas countries and colonial conquest. The crusades were a concrete expression of European feudalism's expansionist aspirations, which, under a religious banner, were primarily aimed at the treasures of the Orient and the conquest of land in the conquered territories. As a result of the fragmentation of the fiefdoms, parts of the knighthood, especially in France, found themselves in a poor economic situation and many knights' sons were looking for a new livelihood. However, the French peasants participating in the First Crusade (1096-1099) and those from the imperial territories west of the Rhine also sought to escape the growing pressure of exploitation. Another important driving force was the desire of Italian maritime cities such as Venice, Genoa and Pisa to break the Arab monopoly on intermediate trade in the eastern Mediterranean and to gain control of trade in oriental goods. In other words, early capitalist elements were already mixed into the objective motivation of colonial policy. With the crusades, the papacy and the church pursued

particular political goals. The military successes of the crusaders were favored by the pronounced signs of decay in the Arab states during this period, such as in the Seljuk unified state in the east and in the Egyptian Fatimid Empire.

The result of the Crusades was the founding of the feudally organized Crusader states in Syria and Palestine, in which the indigenous population was exploited by a richly [583] structured feudal hierarchy. This feudal colonial rule was presented particularly clearly in a collection of laws of the Kingdom of Jerusalem, the Assises of Jerusalem. Engels wrote about them: "Has feudalism ever lived up to its name? Founded in the West Frankish kingdom, further developed in Normandy by the Norwegian conquerors, further developed by the French Normans in England and southern Italy, it came closest to its concept - in the ephemeral kingdom of Jerusalem, which has left the most classical expression of the feudal order in the Assises de Jérusalem." [MEW 39: 43]. [MEW 39: 433] The colonial rule of the European conquerors was expressed above all in the fact that the indigenous feudal lords were replaced by foreigners. The exploitation practiced by the latter weighed heavily on the Muslim and Christian-Syrian peasants. Strict penal provisions testify to sharp social tensions and various forms of peasant class struggle such as refusal to pay taxes, work stoppages and uprisings. In contrast, there was hardly any agricultural settlement of the areas by European immigrants, although attempts were made. For example, 32 families from southern France, Catalonia and Flanders were settled near Ascalon. [23: 181]

The heavy exploitation of agricultural producers, the foreign feudal lords' lack of interest in production and the numerous wars led to production in the Crusader states not only stagnating, but falling behind the level of development before the Crusader conquest. The economic basis of the cities, especially the port cities, was primarily the transit trade with goods coming from Damascus, Baghdad, Mosul and Aleppo. In the country itself, the main commercial products produced for export were silk, ceramics, glassware and goldsmith's work. The trade in "relics from the Holy Land" was considerable.

However, the fierce resistance of the oppressed population, the lack of a real central authority and the conquerors' superiority in terms of weaponry resulted in the political and military weakness of the crusader states, which, despite renewed crusades and the help of the Italian maritime republics that maintained trading factories there, finally succumbed to the pressure of the resurgent Muslim world after a series of battles.

The participants in the Fourth Crusade, which lasted from 1202 to 1204 and was particularly obviously determined by the economic interests of Venice, conquered the European parts of Byzantium and Constantinople, destroying valuable cultural assets in the process, and established the feudal-colonial Latin Empire, which lasted until 1261. Here too, Western European feudal lords and Venetians ruthlessly exploited the masses. Although large parts of the Byzantine feudal aristocracy tried to come to an agreement with the new masters, the conquerors were eventually driven out again on the basis of the will of the masses to resist and starting from the empire of Nikaia, which was characterized by a free peasantry. By the end of the 13th century, the last remnants of Crusader rule in the Middle East had been eliminated. "Probably the most momentous result of the Crusades in world history was the elimination of the Byzantine Empire and the establishment of Venetian-Genoese supremacy in the eastern Mediterranean ... Venice and Genoa proved to be the real winners of the expansion into the Near East. Although they lost their bases on the Syrian-Palestinian coast at the end of the 13th century, they were able to maintain the huge remaining colonial empire they had built with the help of the crusaders for a long time. Italian supremacy was linked to the expansion of the Mediterranean trade." [23: 234 f.]

[584] Although these colonial expansion efforts ultimately failed, they contributed to economic development in Europe. The commercial dominance of the Italian, southern French

and Catalanian maritime cities in the Levant trade was temporarily secured and influences from the highly developed culture of the East, including in the technical field, became noticeable. Traffic over the Alpine passes, which had never been completely interrupted after the fall of the Roman Empire but had nevertheless declined sharply, was revived; as early as the 13th century, transit traffic was a profitable business for the so-called muleteer companies. Settlements and fortified points along the routes developed into towns. As the Italian merchant class had initially achieved its main goal of securing supremacy in Mediterranean trade, the Western European states were sufficiently preoccupied with internal problems, and not least because Ottoman rule had now erected a strong barrier to European penetration into the Orient, so that European feudal expansion to the north-east proved more promising, interest in renewed colonial advances into the Orient waned for some time.

At the end of the 14th century and the beginning of the 15th century, the need for the products of overseas countries and territories grew in Europe with the further development of the urban bourgeoisie and the various branches of industry. The increasing and differentiating consumer needs of the feudal gentry also had an effect in this direction. Spices, fabrics - especially silks - rare woods, pearls and precious metals became coveted and highly valued commodities. Engels wrote about the increased needs of the nobility: "Native cloth, furniture and jewelry, Italian silks, Brabant lace, Nordic furs, Arabian perfumes, Levantine fruits, Indian spices - everything but soap - he bought from the cities." [MEW 21: 392 f.] However, the social driving forces behind the transition to colonial policy were diverse and complex. The interests of impoverished sons of the middle and lesser nobility in Spain and Portugal were also united with the motives already mentioned. The aristocracy saw its entitlements restricted as a result of declining monetary income from the tributes of the serfs, which was a consequence of economic depression. The central authorities were also looking for additional sources of income, and the church and clergy were not only interested in missionary work, but also in exploiting foreign peoples.

As far as oriental products were concerned, they now reached Europe again via Arab middlemen. Although the resale of overseas products brought great profits to the southern European merchants in the port cities, it also fueled greed for the sources of such goods. The Venetian merchants Nicolo, Matteo and Marco Polo, who had already reached the realm of the Mongolian Great Khan and his court in Peking on arduous overland routes in the 13th century, had told of the fabulous riches of the East, but for 150 years they remained the only Europeans to get there. The land route was too dangerous and the sea route was unknown.

The economic changes mentioned above, together with the further development of nautical and geographic knowledge that began at the start of the 15th century, then led to the transition to large-scale colonial expansion by European powers and to a new dimension of colonialism. The utilization of the new knowledge for overseas shipping and colonial conquests is linked to the name of the Portuguese Infante Dom Enrique, who became known as "Henry the Navigator". In 1415, even before the last Arab-ruled territories on [585] Iberian soil had been conquered by the Spanish, Ceuta, an important trading center in Mauritania (Morocco) and an important staging point for goods from India, was stormed by Portuguese troops. This was the beginning of the transition from Reconquista to Conquista, and the period of colonial conquests began, which led to the subjugation not only of Africa, but also of ever larger parts of the rest of the overseas world. The initial targets of the Portuguese ventures were the gold and spice countries of Senegal and Niger, whose plundering was intended to fill the constantly empty royal coffers. After taking possession of the Azores and the Canary Islands, the Portuguese explorers pushed further and further south along the West African coast, exploring the entire West African coast between 1433 and 1460 and establishing bases and trading factories. In 1422, the first slaves and the first shipments of gold dust arrived in Portugal, and in 1447 the Portuguese reached the

Senegal estuary, the mouth of the Niger and Cameroon in 1481, and later the southern tip of Africa. On his way around the Cape of Good Hope, Vasco da Gama reached India in 1498, where the Portuguese introduced themselves with unprecedented cruelty. "They had gone through their school in the bitter rivalries of Europe; now they attacked these tolerant and peaceful civilizations of the Indian Ocean with a ferocity and violence that was incomparable to anything that had happened there for many centuries. 'The cruelties,' says Whiteway, 'consisted not only in the usual cruelties, but were deliberately adopted as a method of terrorizing policy by Vasco da Gama, Almeida, and Albuquerque, to cite no small examples'." [7: 162 f.] The Portuguese king Manuel assumed the title "ruler of Guinea and its possessions, master of navigation and trade with Ethiopia, Arabia, Persia and India". In fact, ruling chiefs on the African coast and in Zanzibar were forced to pay tribute. The conquerors used armed force to break the dominance of the Arabo-Swahili traders in East African cities, setting up garrisons in Sofala, Kilwa, Mombasa and other places and looting and burning the flourishing trading centers they had found. The Portuguese network of trading posts and fortifications became ever more extensive, stretching along the African coast, across Aden, the Persian Gulf, the west coast of India, Malacca and all the way to China. The center of this extensive colonial rule was the area of Goa on the Indian subcontinent, where the viceroy had his seat. The Portuguese sought a monopoly on trade and colonial exploitation everywhere and attempted to secure this with a myriad of cumbersome regulations. However, they were unable to achieve permanent effective control over the long coastal areas. However, they left behind a long chain of devastated cities and territories and destroyed, among others, the East African Monomotapa Empire, whose rich gold and mining resources they were after. In order to secure their rule in the endangered areas, they sought to transfer feudal conditions to Africa and thus introduced the system of crown estates (*prazos da coroa*) south of the Zambezi, which had the character of medieval feudal estates. Their tenants had to pay the crown a rent, usually in gold dust.

However, Portuguese colonialism also reached out to the western hemisphere, where Brazil had been subjugated since 1500. At first, only Brazil wood was harvested there, then plantation farming was introduced, mainly sugar cane was cultivated at first. The search for precious metals and the hunt for slaves for the plantations [586] in the coastal areas led to constant penetration into the interior. The Indians who had been expelled or exterminated were then replaced by Negro slaves, who made up the majority of the workforce of the plantation slavery, which was only completely abolished in 1888, and produced the main export, cane sugar.

At the end of the 15th century, the Spanish also began to take part in the race to divide up the overseas world, amassing an even larger colonial territory, particularly on the American continent. These colonial conquests were mainly carried out by impoverished Spanish nobles and thousands of crusaders, robbers and adventurers, led by private entrepreneurs, the conquistadors. The territories to be conquered were transferred to them as feudal fiefdoms on the basis of treaties concluded with the Spanish crown. However, it cannot be overlooked that profound economic changes within late feudal society played a decisive role in triggering colonial expansion. These included the development of early capitalist maritime cities, the emergence of a commercial bourgeoisie eager for overseas trade, the formation of a capitalist banking system, capitalist shipping companies, etc. The bourgeoisie of the Iberian peninsula invested the wealth they had gained less in manufactories. This meant that capitalist development soon stagnated again, particularly in Spain and Portugal, but in other parts of Europe the wealth gained, the expansion of the sphere of trade and power and the beginnings of the formation of a global market as well as the exploitation of foreign peoples strengthened the capitalist elements and ultimately helped the bourgeoisie to triumph over the feudal forces. "The East Indian and Chinese markets, the colonization of America, the exchange with the colonies, the multiplication of the means of exchange and the

The Communist Party Manifesto states that "the colonialization of the foreign peoples was the officially proclaimed aim of religious conversion. [MEW 4: 463] While the religious conversion of the foreign peoples was the officially proclaimed goal of the colonial undertakings, in reality a cruel regime of oppression was established in the conquered territories, ancient civilizations were destroyed, such as in Mexico and Peru, and the indigenous population was enslaved or killed by the thousands. The conquerors were rapacious and unscrupulous lansquenets. They murdered, plundered and dragged enormous treasures to Europe. Francisco Pizarro (1475-1541), the destroyer of the Inca state and murderer of the captured ruler of this highly organized state, was just one of the notorious adventurers of the time. He is said to have captured treasures worth 4.5 million ducats, which made him richer than the King of Spain. The beginning of the actual age of colonial conquests also saw the struggle between the colonial powers for the division of the spoils. Initially, Spain and Portugal were bitter rivals. The papal see, called upon as the highest authority, made the decision by awarding one half of the world to Spain and the other to Portugal. In the Treaty of Tordesillas in 1494, the "demarcation line" was set at the 46th meridian of west longitude. This meant that, with the exception of Brazil, the majority of the New World was handed over to the Spanish. After a borderline was also drawn on the other side of the globe, the world was divided into two large colonial spheres of influence in the 16th century. Towards the end of the 16th century, the Spanish court boasted that "the sun never set" in the world ruled by Spain.

The main aim of the Iberian colonial conquerors was initially to acquire gold and silver treasures, pearls and precious stones. Such treasures were obtained either by [587] direct robbery or by forcing the population of the conquered territories to pay enormous tribute. In this way, a flow of gold and silver reached Spain and Portugal, which on the one hand played an important role in stimulating the capitalist mode of production and on the other triggered a wave of inflation throughout Europe. "The discovery of the gold and silver lands in America", wrote Marx,

"the extermination, enslavement and burial of the indigenous population in the mines, the incipient conquest and plundering of the East Indies, the transformation of Africa into an enclosure for the trade hunt for black skins mark the dawn of the capitalist era of production. These idyllic processes are the main moments of the original accumulation." [MEW 23: 779] In addition to the hunt for metal and other treasures, the Portuguese and Spanish in the American colonies were particularly preoccupied with land theft. The land taken from the Indians was handed out to rich nobles and merchants, military adventurers and the clergy in a wasteful manner. The system of latifundia and plantations was created, some of which still hinder socio-economic progress in Latin America today. Cortez reportedly received 64,000 km² of land and 115,000 Indians as subjects. Others were given lands of 13,000-

26,000 km² In 1580, the La Plata region, comprising Argentina, Uruguay, Paraguay and southern Brazil, was divided among 64 large landowners. In this way, the feudal system was to be firmly anchored in the New World. At the same time, trade in the Spanish colonial system was controlled even more completely and autocratically than by the Portuguese. The colonies were not allowed to trade with each other or had to have their cargoes pass through Spanish ports. Initially, Seville was given the monopoly on colonial trade, which was later extended to Cadiz. An extremely cumbersome system of rules and regulations made trade extremely difficult. Fees and taxes were numerous and burdensome. For example, 40 different types of taxes were levied in the Spanish colonies.

Although the first Portuguese ships had already brought Africans to Europe, the socio-economic structure of the Iberian Peninsula was not suitable for the mass use of slaves. As a result, their numbers were initially limited. However, with the emergence of the plantation economy in Cape Verde and other islands, especially in America, the demand for Negro slaves increased. The slave trade developed in leaps and bounds. As a result, slave hunting and the slave trade became hostage to Africa. Entire regions were ruined and depopulated, West African

States, such as the Congo Empire and others, were destroyed. 15-20 million Africans were brought to America. "The statistics on the respective strength of the slave trade are unfortunately only fragmentary ... W. E. B. Du Bois estimates that for every slave brought to America, five were killed in Africa or perished at sea. His conclusion from this is that the American slave trade cost Africa 60 million people ... But we can safely assume that the economic losses in human beings must have been at least double the actual disembarkations ... It must be realized, after all, that the slave trade was mainly directed at the strongest and healthiest sections of the population, which were in great demand on the American markets, and that this resulted in serious interference with the vitality and reproductive capacity of the remaining population." [19: 196 f.]

The trade in African slaves was not only carried out by Arabs, Portuguese and Spaniards, but also, from the end of the 16th century onwards, by other powers that were moving towards colonialism, which had not only developed their own economic incentives for colonial policy, but also, at least as far as the Dutch and British were concerned, did not feel bound by the Pope's division of the world after their separation from the Catholic Church. The French, Dutch and English not only hunted down the Portuguese and Spanish ships laden with colonial treasures and products, but also sought to wrest their colonies from the Iberians. Dutch and British slave traders in particular adopted the slave hunting and trading methods of the Portuguese and Spanish and even surpassed them, so that eventually more than half of all slaves taken to the American mainland were brought there by British slave traders. However, Swedes, Danes and Brandenburgians also appeared on the East African coast or sought to secure bases for themselves.

But the colonial ventures of the new powers, initially also carried out with the methods of original accumulation and no less cruelly than those of the Portuguese and Spanish, marked the transition from the late feudal colonial period to a new era of colonial politics, the capitalist one. "With the development of capitalist production during the manufactory period, the public opinion of Europe had lost the last vestige of shame and conscience... Liverpool grew large on the basis of the slave trade. It formed its method of original accumulation.... If gold, according to Augier, 'comes into the world with natural bloodstains on one cheek', so capital from head to toe, from every pore, dripping with blood and dirt." [MEW 23: 787 f.]

Literature:

- 1 *Aptheker, H.*: Essays in the History of the American Negro. New York 1945; 2. *Babinger, F.*: Mehmed der Eroberer und seine Zeit, Munich 1959; 3. *Bhattacharyya, H.*: Aspects of Indian Economic History. Calcutta 1966; 4. *Büttner, Th.*: Die Geschichte Afrikas. T. I, Berlin 1976; 5. *Crow, J. A.*: Re Epic of Latin America. New York 1946; 6. *Curtin, P. D.*: The Atlantic Slave Trade: A Census. Wisconsin 1969; 7. *Davidson, B.*: Urzeit und Geschichte Afrikas. Reinbeck b. Hamburg 1961; 8. *Ders.*: Vom Sklavenhandel zur Kolonialisierung. Hamburg 1966; 9. *Diaz del Castillo, B.*: Re True History of the Conquest of Mexico, New York 1937; 10. *Erbstößer, M.*: Die Kreuzzüge. Leipzig 1976; 11. *Fage, J. D.*: Outline Atlas of African History. London 1958; 12. *Foster, W. Z.*: Abriß der politischen Geschichte beider Amerika. Berlin 1957; 13. *Irmscher, J.*: Die weltgeschichtliche Bedeutung des Byzantinischen Reiches. Berlin 1971; 14. *Nash, R.*: The Conquest of Brazil. New York 1926; 15. *Noth, A.*: Heiliger Krieg und Heiliger Kampf in Islam und Christentum. Berlin 1966; 16. *Ostrogorsky, G.*: Geschichte des byzantinischen Staates. Munich 1963; 17. *Roche stet, A.*: American Capitalism 1607-1800. New York 1948; 18. *Spiegel, W. H.*: Re Brazilian Economy. Philadelphia 1949; 19. *Suret-Canale, J.*: Schwarzafrika. Vol. 1, Berlin 1966; 20. *Urena, P. H.*: Historia de la Cultura en La América Hispánica, Mexico 1947; 21. *Werner, E.*: Die Geburt einer Großmacht - Die Osmanen. Berlin 1978; 22. *Wilgus, A. G.*: Re Development of Hispanic America. New York 1941; 23 *Zöllner, W.*: Geschichte der Kreuzzüge, Berlin 1977; 24 *Die Völker Afrikas*. Berlin 1961; 25. *History of the Arabs*. Berlin 1971.

Manfred Nussbaum [589]

2.4.13. Military and economy

The genesis of feudalism and its military system was a revolutionary process that lasted for centuries and was filled with wars. Marx and Engels drew particular attention to the close connection between war, the army and the development of the feudal social order: "Feudality ... had its origin on the part of the conquerors in the warlike organization of the army during the conquest itself, and this only developed into feudality proper after the conquest through the influence of the productive forces found in the conquered countries." [MEW 3: 64 f.] However, this complicated development took place at different speeds and in different ways, which gave the development of the feudal military system in Byzantium, in Western and Central Europe as well as in Eastern and South-Eastern Europe specific characteristics. In general, the armored cavalry of the feudal landowners became the defining element, from which the army of knights emerged as an instrument and military symbol of feudal class rule in Western and Central Europe in the 10th and 11th centuries.

Feudal system and army of knights: The beginnings of the feudal military system visible in Byzantium in the 7th century sprang from the thematic order. In contrast to the small estates of the peasant stratiotes, the pronoias (fiefs) of the large landowners provided the basis for raising an armored cavalry of professional warriors. [23: 31 ff.] In Western and Central Europe, the feudal military system developed on the basis of the feudal system: land was granted by the king or military leader (duke) in return for the obligation to provide administrative or military services. [6: 36 ff.] In the Frankish state, this combination of land lending and military service had already become common at the beginning of the 8th century. The vassal was bound to his feudal lord (senior) or king through land ownership (beneficium) and personal obligation (vassalage). The army of vassals, consisting of armoured horsemen, was based on the prevailing economy in kind and required feudal exploitation conditions, as the landlord could only afford the cost of the armaments - around 800, protective armour, weapons and war horses alone were equivalent to the value of around 45 cows - if he owned land and dependent farmers. [30: 23]

In addition to the vassal army, the general contingent from the period of military democracy continued to exist, to which the free peasants and part of the dependent population belonged. As the free peasants became economically ruined and dependent as a result of their participation in the wars and thus also lost their political rights, the general contingent increasingly fell into disrepair. The capitulations issued by the Carolingians, especially Charlemagne (768 to 814), concerning the military service of the free peasants, in which the kings saw a counterweight to the growing military power of the great landlords, were unable to halt this development. [4: 27 ff.] "The army of free peasants called up directly by the king was replaced by an army composed of the servants of the newly risen greats, including serf peasants, the descendants of those who had previously known no lord but the king ... had known no master but the king." [MEW 21: 147] Although the people were gradually excluded from military service, the duty of the inhabitants to defend the country in times of imminent danger of war and attacks by foreign powers remained. This was the basis for the Landfolge, a militia-like organization linked to land and house ownership under the control of the lord of the manor, which lasted until the late feudal period. In the German feudal empire, until the 16th century the general militia existed only in the remote areas on the North Sea coast (Dithmarschen, Stedinger) and in the Alps, which were hardly affected by feudal development. [6: 86 ff.] [26: 40 ff.] In contrast, [590] the cavalry in Poland, the Russian principalities and the Scandinavian countries retained a greater significance, although here too, with the advance of feudalization and accelerated by the military clash with the German and Byzantine armoured cavalry, a heavily armed cavalry emerged. [23: 22 ff., 103 ff.]

From the 10th to the 14th century, the knightly army determined the profile of feudal military affairs in Western and Central Europe; the mercenary element played a subordinate role and only became more prominent again in France, Flanders (Brabant zones) and Italy in the 11th/12th century. The armored horsemen of France, England (after the Norman Conquest in 1066), the Spanish kingdoms, the

The Norman state in southern Italy (from 1130) and, above all, the knightly army of the German feudal empire were among the strongest feudal armies in the High Middle Ages. Organizationally, the armies consisted of detachments of the various vassals, whereby a rank pyramid gradually developed within the nobility, which became visible in the "Heerschildordnungen" of the Saxon and Swabian Mirrors (13th century). [2: 222 ff.] [8: 264] [30: 26 ff.] The royal central authority endeavored to strengthen its own military power, as powerful vassals often refused to fulfill their military duties. In the German feudal empire, the crown used its power of disposal over church property to secure reliable vassals by granting land to bishops and abbots. The imperial church system reached its highest military significance in the 11th century. The kings also had a reliable source of support in the form of ministeriality, which performed military service at court or served as permanent garrisons in the royal castles. After the Investiture Controversy (1075 to 1122) and the Concordat of Worms (1122) had shaken the imperial ecclesiastical system, the military value of the ministeriality for the crown increased further. [2: 93 f.]

Due to their feudal structure and economic conditions, the armies of knights were only operational for a limited time. In general, the knight had to bring equipment and provisions for himself and his retinue. Some weapons and equipment were made by craftsmen living in the village or at the castle, others were supplied by traders, with oriental blades being particularly sought after. Advances in smelting technology, metalworking and the specialization of craftsmen in the 12th/13th century led to further improvements in armour and weapons. The knight equipped with sword, mace, lance and protective gear was superior to the warrior fighting on foot as well as the lightly armed horseman. [4: 239 ff., 277 ff.] [7: 25 ff.] During the Eastern Expansion (10th to 13th centuries) and the Crusades (1096-1270), the strength of the war-tested armored cavalry became apparent, although it could not do without light cavalry and foot warriors as auxiliary weapons. Oriental fortress construction influenced the technology of castle and city fortifications in Europe (projecting towers, pitch noses); the war fleets of Venice, Genoa and other cities also gained in importance through the wars in the Mediterranean (beginning of the transition from oared to sailing warships and use of the magnetic compass). [23: 153]

From the 11th century onwards, the city emerged as a military factor in Central and Western Europe. Urban military power was based on the citizen's militia, which was provided by the craftsmen's guilds or by citizens deployed according to neighborhoods and alleys. They had great fighting power, especially as the craftsmen produced most of the weapons and equipment themselves. The cities spent large sums of money on the expansion and maintenance of the fortifications, with Cologne accounting for over 80% of the annual revenue in 1379. Guard duty, weapons training and work on the ramparts and walls were important duties of the citizens. [3: 42] [26: 53 ff.] [30: 40 ff.] **[591]** As the prolonged deployment of the citizens' militia impaired their working lives, the cities soon began to take mercenaries into service.

From knightly armies to mercenary armies: the changes in the feudal order since the 14th century, above all the growth of commodity-money relations, the great popular movements in France, England, Bohemia and the German feudal empire and the advent of firearms changed the feudal military system. "The feudal armies were formed from the numerous mercenaries who were now free to serve those who paid them as a result of the decline of feudalism." [MEW 14: 27] The proportion of mercenaries in the feudal armies increased rapidly. Financially strong princes and cities were able to strengthen their armies with mercenaries and thus increase their political influence. However, this process did not take hold uniformly in feudal Europe. [23: 358 ff.] [25] The mercenary system, which was also widespread in Byzantium and Italy (condottieri) in the High Middle Ages, became increasingly important in Western and Central Europe from the 14th century onwards (armagnacs, ordinance companies, lansquenets). In Northern and Eastern Europe, on the other hand, it played a subordinate role until the 17th century, as the socio-economic conditions did not arise until later. The maintenance of soldiers required large sums of money. For this reason, the feudal powers and cities strove to raise the funds for costly armaments and warfare through increased taxes, loans from usury and commercial capital and the collection of a war chest. [12:

19 ff.] [17: 23 ff.] The growing importance of armaments was reflected in the construction of arsenals in the cities. [28: 79 ff.]

At the same time, the loosening of feudal dependency relations in Western Europe prepared the social ground for the resurgence of the infantry as a numerically strong, organized and powerful armed force, from which the infantry emerged in the 17th century. The military successes of the Swiss, Flemish and English infantry, the Hussites and the German and Spanish Landsknechte contributed decisively to the decline of the feudal army. The new military organization and the new art of warfare (war tactics) born in the popular battles of the 14th and 15th centuries benefited the mercenary system; the Swiss and the Landsknechte in particular formed the core of the large mercenary armies in Western and Central Europe in the 16th century [12: 19 ff.] [30: 45 ff.].

The spread of firearms from the 14th century onwards ushered in a revolution in military affairs and warfare, but this was slow, uneven and spontaneous due to the pace of development of the productive forces. Weapons technology, tactics and fortifications had changed fundamentally by the 16th century. [23: 374 ff.] The production of weapons was initially still dominated by individual production, with experienced and specialized families of craftsmen such as the Löffler in Innsbruck, the Hilger in Freiberg and the Pegnitzer in Nuremberg standing out. Soon the transition to guild-based and handcrafted production of edged weapons, handguns and rifles took place. [18: 36 ff., 56 ff.] [21: 17 ff., 119 ff., 132 ff.] [22: 47 ff., 153 ff.] This made it possible to equip the mercenary armies, which numbered up to 40,000 men in the 16th century, quickly and uniformly. The most important places where rifles and pistols were manufactured were Nuremberg, Augsburg, Suhl, Solingen, Florence, Brescia, Amsterdam, Liège, Verdun, St. Etienne, Sedan, Stockholm, Copenhagen, Tula, Barcelona, Córdoba and London. The increased production of small arms also increased the proportion of marksmen in the army. Whereas around 1500 only about 10% of the infantry were equipped with matchlocks and 90% with spears (pikes), by 1600 the ratio was already 60 : 40 in favor of marksmen. [30: 69]

The Thirty Years' War (1618-1648) was an important milestone in the development of the mercenary system and the relationship [592] between the economy and the military. The mercenary armies numbered up to 100,000 men at times and represented an enormous burden on the country in terms of supplies. With the growth of the armed forces and the duration of the war, the war treasure, subsidies, taxes and natural resources were no longer sufficient to maintain the troops. Arms imports from the Netherlands, England and Italy also became increasingly complicated as the war spread throughout Central Europe. Therefore, sovereign princes and wealthy mercenary leaders set up their own companies to produce war material. In Bohemia, the imperial commander Albrecht von Wallenstein (1583 to 1634) founded manufactories with the help of the banker Jan de Witte († 1630) to supply his army with weapons and clothing. Such partly state-owned and partly private companies, which were also established in other countries, were the beginnings of a special armaments production from which larger arms and uniform manufactories, gun foundries and powder mills later emerged. [9: 42 ff.]

Absolutism, manufacturing capitalism and standing mercenary armies: After 1648, standing mercenary armies emerged in most European states from the temporarily recruited troops, the emergence of which was linked to absolutism and the development of manufacturing capitalism. [10: 4 ff.] With the help of an absolutist regime, the feudal powers attempted to adapt their rule, which had been shaken by the early bourgeois revolution in the Netherlands (16th century) and the English bourgeois revolution (17th century), to the new balance of power between feudalism and capitalism. The standing mercenary army was the instrument and result of this policy of striving towards absolutism, for example in Spain under Philip II (1556 to 1598) and his successors, in France under Louis XIV (1643 to 1715) and in Russia under Peter I (1689 to 1725). In Sweden, the mercenaries formed only a part of the military force, as the military constitution was based on the "Indelningsverk" (classification system). According to this, the provinces provided soldiers who received land and economic benefits for their military service. The Indelningsverk was an important basis for Sweden's military strength in the 17th/18th century.

the bourgeois Netherlands and England. In contrast, the development of standing armies in the German feudal empire took place within the framework of the territories; the regional princes thus strengthened their power, while the imperial central authority was further weakened. [27: 77 ff.] In the Ottoman Empire, the army consisted of the professional warriors of the Janissaries, the mounted sipahis (liegemen) and the irregular cavalry of the dependent peoples; only small numbers of European mercenaries served.

In addition to the standing mercenary armies, most countries also had militias based on the limited compulsory service of local inhabitants; in German territories in particular, the state defensive system played an important role at times, as the financially weaker princes maintained defensive troops instead of costly mercenaries (state militia in Electoral Saxony, state militia in Bavaria, state militia in Brandenburg-Prussia from 1701 to 1713). The military frontier, a territorial defensive organization of the Habsburg rulers, was established on the Austro-Turkish border in Hungary and Croatia as early as the 16th century. The soldiers settled there received land, property and economic and religious privileges in return for the obligation to perform permanent military service; the militarily organized Cossack settlements in the southern Russian territories had a similar function. [In contrast to the poorly trained defensive militias, the frontiersmen and Cossacks formed combat-ready troops that were also deployed outside the border areas in the 18th century.

[593] The emergence of standing mercenary armies changed the relationship between the state, the people and the army as well as the structure, administration, leadership and equipment of the troops. In connection with the development of manufacturing capitalism, the guilds were replaced by manufactories. The state acted as a customer and purchaser of uniforms and war material. This also applied to the construction of warships and the equipping of fleets, which required large financial resources and close cooperation between many trades. [17: 29 ff.] [28: 39 ff., 60 ff., 175 ff.] The connection between the economic and social order and the standing army found its particular form in the Prussian military state, which embodied feudal absolutist militarism "par excellence". The needs of armaments determined the entire economy. [1] [5: 273 ff.] [11: 11 ff.] [20: 340 ff.] Around 1740, Prussia maintained the fourth strongest European army, although its potency, resources and income were limited and could not compare with those of the large feudal and capitalist countries [11: 22] (see Tah.).

Table

Strength of the armies of some European countries

	Population (in millions)	Government income (in mill.	Army strength (target) ¹
France	20	approx. 60	203.800
Russia	19,5	approx. 15	170.000
Austria	13	approx. 20	108.000
Prussia	2,5	approx. 7	99.000
England	8	approx. 24	30.000
Saxony	1,7	approx. 6	26.000
Bavaria	0,7	approx. 5	10.000

¹ The actual strength was approx. 10-20% below the target strength.

The concentration of economic potential and finances on the military was a decisive basis of Prussia's military strength in the 18th century. In other countries, too, the standing armies and fleets were a burden on the economy, but not to the same strong and permanent extent as in Prussia. In France, military expenditure rose particularly during the predatory wars of Louis XIV (1667/68, 1672 to 1679, 1688 to 1697) and the War of the Spanish Succession (1701 to 1713), but fell again in the years of peace. [13: 255 ff.] [14: 47 ff.] In addition to the war treasury, taxes, contributions, subsidies from foreign powers and coinage debasements were used to finance the armies and long-lasting wars. During the Seven Years' War (1756 to 1763), Prussia extorted over 61 million thalers in contributions from occupied Saxony. In total, this war cost Prussia over 139 million thalers and

France 677 million livres; in England the national debt increased from 72.3 million pounds sterling in 1755 to 146.8 million pounds in 1763; in 1761 Austria already had a national debt of 136 million guilders.

den. [11: 87, 169] The costs for military technology in the 18th century amounted to only about 10 to 14% of the military budget, the largest share - in contrast to the 19th and 20th centuries - was still accounted for by wages, clothing and food. [18: 10 f.]

The emergence of standing armies and fleets and the long wars favored the development of a class of publishers, manufacturers and bankers who earned money from armaments. In Prussia, the bankers Gottfried A. Daum (1679 to 1743) and David Splitgerber (1683 to 1764) as well as the silk manufacturer Johannes E. Gotzkowsky (1710 to 1775) were financiers and profiteers of the armaments and the wars. Splitgerber & Daum also owned the rifle manufactory in Spandau, a steelware manufactory in Eberswalde and leased state-owned metal works. Many bourgeois entrepreneurs were heavily dependent on the state and the army and largely aligned their interests with feudal absolutist politics.

Technical advances in ore smelting, metal processing and the textile industry had a greater impact than before on the equipment and armament of the armed forces. New processes in smelting and casting technology and the use of improved drilling machines made it possible to increase the production of guns and small arms in terms of quantity and quality. The manufactories produced the weapons under state control according to specified dimensions and delivered large quantities of standardized barrels and barrels to order. [The center of weapons production in the German states were residences such as Berlin, Vienna, Potsdam and Dresden, as well as places where ore deposits, an abundance of wood, rivers as energy sources and workers were available. At the beginning of the 18th century, gun factories were established in Olbernhau, Steyr, Essen and Solingen. Since the 16th century, Suhl had been a well-known center of gun production beyond the country's borders, delivering 23,000 muskets and 10,000 pistols in 1658 and selling over 20,000 rifles to Prussia alone during the Seven Years' War. [30: 82] The production of weapons and ammunition increased considerably in the 18th century; the output of the Potsdam rifle manufactory amounted to 6,000-10,000 rifles per year around 1750, while the Berlin foundry delivered around 1,200 cannon barrels from 1741 to 1762 and the foundry in Breslau (Wrocław) 300 barrels. [24: 12, 14 f.] Nevertheless, this quantity was not sufficient to cover the war losses and the new requirements of the Prussian army. Prussia and other belligerent countries imported weapons and ammunition from the Netherlands, Sweden and England and used captured war material. Gun foundries, which worked for their own armies and fleets and to a considerable extent for export, were located in Nantes, Bordeaux, St. Étienne, London, Sheffield, Copenhagen, Stockholm, Barcelona and Venice; from the 18th century onwards, the manufactories and foundries in Tula, Sestroretsk and Petrosavodsk played an increasingly important role in equipping the Russian army and navy.

The upswing in wool, cloth and yarn production was a basis for uniformly clothing the standing armies. The cloth factories founded in England, France, the Netherlands and other countries supplied the armies and often worked directly on government orders. The largest cloth manufactory in Prussia producing for army needs was the warehouse founded in Berlin in 1712 by Johann A. Kraut (1661 to 1723), which became a state-owned company in 1723 and primarily supplied the Prussian army with clothing, but also exported military cloth to Russia. With the uniformization, the inconsistency in the clothing of mercenaries that had prevailed until the 17th century began to disappear. [16: 9 ff.] [28: 155 ff.]

From the 18th century onwards, the trade in arms between countries increased. This, together with the more rapid dissemination of advances in weapons technology and technical literature, contributed to a gradual tendency towards the standardization of military technology. The flintlock rifle with bayonet developed in France, the Austrian and Swedish light cannons, the Prussian [595] army's single ramrod, the Russian army's artillery on horseback and the various "manners" (schools) of fortress construction became common property of many European armies in the course of the 18th century. [10: 36 ff.] As a result, the military system of the feudal absolutist

countries a certain homogeneity, which was reflected in the organization, leadership, art of war and military thinking. [30: 100]

In the second half of the 18th century, the signs of crisis in the feudal military system intensified, leading to a fossilization of military relations and institutions. The stagnation culminated in the final collapse of the late feudal military system during the wars of the feudal powers against revolutionary France (after 1792). The bourgeois revolution in France and the effects of the industrial revolution emanating from England set the stage for the bourgeois military system.

Literature:

1 *Büsch, O.*: Militärsystem und Sozialleben im alten Preußen 1713-1807, Berlin 1962; 2 *Conrad, H.*: Geschichte der deutschen Wehrverfassung. T. 1, Munich 1939; 3. *Czok, K.*: Die Stadt. Leipzig/Jena/Berlin 1969; 4. *Delbrück, H.*: Geschichte der Kriegskunst im Rahmen der politischen Geschichte. T. 3, Berlin 1923; 5. *Ders.*: Geschichte der Kriegskunst im Rahmen der politischen Geschichte. T. 4, Berlin 1920; 6. *Fehr, H.*: Deutsche Rechtsgeschichte. Berlin 1952; 7. *Frauenholz, E. v.*: Das Gesicht der Schlacht. Stuttgart n.d. (1937); 8. *Ders.*: Das Heerwesen der germanischen Frühzeit, des Frankenreichs und des ritterlichen Zeitalters, Munich 1935; 9. *Ders.*: Das Heerwesen in der Zeit des Dreißigjährigen Krieges. T. 1, Munich 1938; 10. *Ders.*: Das Heerwesen in der Zeit des Absolutismus. Munich 1940; 11. *Groehler, O.*: Die Kriege Friedrich II. Berlin 1968; 12. *Hoyer, S.*: Das Militärwesen im deutschen Bauernkrieg 1524-1526. Berlin 1975; 13. *Kaemmel, E.*: Finanzgeschichte. Berlin 1966; 14. *Köller, H./Töpfer, B.*: Frankreich. T. 2, Berlin 1969; 15. *Koser, R.*, in: FBPG 1900, vol. 13, p. 153 ff.; 16. *Krause, G.*: Altpreußische Uniformfertigung als Vorstufe der Bekleidungsindustrie. Hamburg 1965; 17. *Lanter, M.*: Die Finanzierung des Krieges. Lucerne 1950; 18. *Lagowski, A. N.*: Strategie und Ökonomie. Berlin 1959; 19. *Lugs, J.*: Handfeuerwaffen. 2 vols., Berlin 1962; 20. *Mehring, F.*, in: Gesammelte Schriften. Vol. 8, Berlin 1967, p. 190 ff.; 21. *Müller, H.*: Historische Waffen. Berlin 1957; 22. *Ders.*: Deutsche Bronzegeschützrohre 1400-1750. Berlin 1968; 23. *Rasin, J. A.*: Geschichte der Kriegskunst. Vol. II, Berlin 1960; 24. *Rehfeld, P.* in: FBPG, Vol. 55, 1944, p. 127 ff.; 25. *Schmitthenner, P.*: Das freie Söldnertum im abendländischen Imperium des Mittelalters. Munich 1934; 26. *Schnitter, H.*: Volk und Landesverteidigung. Potsdam 1974 (Diss.); 27. *Ders.* in: ZMG 1970, H. 1, 77 ff.; 28. *Sombart, W.*: Studien zur Entwicklungsgeschichte des modernen Kapitalismus. Vol. 2, Munich/Leipzig 1913; 29. *Verbruggen, J.F.*: De Krijgskunst in West-Europa in de Middeleeuwen (IX. to beginn XIV. eeuw). Brussels 1954; 30. *Kurzer Abriß der Militärgeschichte von den Anfängen der Geschichte des deutschen Volkes bis 1945*. Berlin 1974.

Helmut Schnitter [596]

2.4.14. Transportation and communications

The transport system, which was extraordinarily well developed under the conditions of the slave-owning order, fell into decline with the gradual transition to feudalism because, on the one hand, the economic, political and military demands on this branch of material production decreased considerably as a result of the changing production conditions and, on the other hand, the conditions for its maintenance were lacking due to the previously common mass use of slave labor.

For a longer period of time, rudiments of the earlier Roman traffic could only be preserved in the Frankish Empire - proof that centralized political units had a more extensive need for transport to maintain and consolidate their power. Therefore, in contrast to the small territorial states, they had to maintain certain transport connections.

The Merovingians and Carolingians, for example, endeavored to preserve some of the earlier *land and communications traffic*. In doing so, they relied on the *angariae*, i.e. obligations to provide wagons and carriers for state tasks, which were already common under Roman rule. In addition, the Frankish kings demanded so-called *parafredi*, carriage services with horses

to supply the royal court. [12: 381] Intact Roman roads were used for all transportation, supplemented by relatively few primitive new constructions. Only Charlemagne had some military roads paved. Nevertheless, the decrees and directives of the Frankish kings on the construction and maintenance of bridges and roads, as well as the development of legal norms for the use of roads in order to increase their safety (including the protection of important thoroughfares by the king's peace ban), show how important these means of communication were, especially for the administration of the state and for military tasks. [11] If the results of road and bridge construction and their constant maintenance nevertheless lagged far behind the level achieved earlier, it was because, despite the forced labor ordered by the state, society's working capacity was not sufficient to maintain the extensive road network of the former Western Roman Empire.

The highly organized Roman *cursus publicus* also fell into disuse; only some connections and the obligations associated with them, such as the obligation to provide transport and food for the king's travelling officials, were used in modified forms for the urgently needed transmission of news.

In contrast, the Frankish kings had no motive to activate *maritime shipping*. In northern Europe, this was initially in the hands of the Frisians, who had a conveniently located starting point in Dorestad, their most important trading center in the 9th century. From there they were able to operate *land transportation* and *inland shipping*, but they also had access to the North Sea. With their ships, the Frisians sailed along the coast to northern France as well as across the open sea to England. [8: 86] However, it was the Normans who made a decisive qualitative leap in seafaring, helping to bring about the breakthrough of sailing navigation, which had already been known to some extent earlier.

In the following period, the development of commodity-money relations and the emergence of capitalist elements provided the main impetus for an improvement in transport conditions. This was initially stimulated by the upswing in long-distance trade and the emergence of cities as trading centers from around the 10th century onwards, as traders were still also transporters. Although there are isolated indications as early as the 8th century that the clergy in particular used freedmen, freemen or serfs as "wage-earners" in the development of trade transactions, this measure resulted primarily from the ban on trade for clergymen. [2: 231]

Initially, the towns located at the crossroads of important transportation routes were able to grow in importance and size. Among the craftsmen who soon settled in these towns were a striking number who directly or indirectly performed work for the transportation system, such as blacksmiths, saddlers, cartwrights, etc. In addition, some of the feudal peasants who fled to the city found employment as porters or carters with the merchants, so that transportation was one of the economic sectors where wage labour can be traced very early on.

Towards the end of the 12th and the beginning of the 13th century, a *separation between trade and transportation began to emerge*, linked to an expansion of communications. In the period that followed, a large number of merchants with writing skills conducted their business from a fixed point, while the transport trade saw the emergence of an increasingly diverse range of professions, which were particularly divided according to their function in the handling and transportation of goods.

The increase in long-distance trade and the equally expanding traffic between the city and the countryside increased the volume and frequency of land transportation. However, this did not lead to an improvement in road conditions. The collapse of the Carolingian Empire and the increasing political power of the feudal lords had even worsened them, as these political changes meant that the central political and military interest in the maintenance of roads and rivers no longer existed. As fiefs of the feudal lords, they were now subordinated to purely local considerations. Under the pressure of the developing commodity-money relations, the feudal lords drastically increased the tariffs for the use of land and water transportation routes.

Water. Such customs duties were already common to a lesser extent in Carolingian times and were regarded as payment for the safety of roads, rivers and bridges. From the 10th century onwards, however, customs duties were levied more and more arbitrarily, and the revenue from them was primarily used for the parasitic consumption of the feudal lords, who for various reasons had little interest in improving road conditions. [1]

Due to the poor traffic routes, the means of transportation could naturally only be improved slightly. As in Frankish times, pack animals had to be used on many narrow roads. In more favorable conditions, four-wheeled wagons were also used, mainly for transporting goods; passenger transport was rare and extremely uncomfortable due to the wagons' lack of suspension. [3]

The increasingly frequent *transmission of news* was initially carried out by private or occasional messengers on horseback or on foot. Initially, the monasteries and the Teutonic Knights developed an extensive *message traffic*, but from the end of the 13th century so did the universities. The messengers they employed carried administrative, scientific and other news. Merchants also maintained their own messengers, who were usually very well equipped and provided a fast communication link. As early as the 13th century, and increasingly in the 14th century, they were supplemented or replaced by town messengers, who were organized into guilds and carried messages for a corresponding fee; initially on foot, later on horseback and, on particularly busy routes, with "travelling posts". [6]

Inland shipping was more extensive than *land transportation* under feudalism, although it too was increasingly burdened by customs duties and feudal privileges [598], which made the transported goods considerably more expensive. The pronounced local politics of the large cities in particular created further obstacles for *inland navigation* through the various stacking and laying down rights. [4] These rights, initially intended to promote the respective city, subsequently developed more and more into serious obstacles to the development of goods-money relations.

There was no significant technical development of inland waterway vessels for many centuries. The inland vessels used were small and had a shallow draught. There were several reasons for this: the volume of transport was relatively low; narrow and shallow rivers were also used because of the obvious advantages of water transport and, finally, the fact that the ships had to be towed upstream by people or animals had to be taken into account. For this reason, the carrying capacity of ships increased only slowly from 10-20 tons at the beginning to around 50 tons in the 14th and 15th centuries. However, this meant that they were still far superior to land vehicles with an average carrying capacity of around 2 - maximum 3 tons. The more comfortable travel options also led to the use of ships for passenger transportation from around the middle of the 12th century.

Compared to inland shipping, the progress of *maritime shipping* was significant. At that time, it was the focus of transport between countries that could only be reached by sea, or at least more cheaply, "since it enabled the highest mass capacity of transportation at the lowest cost." [12: 579] For this reason, maritime shipping was also the indispensable prerequisite for long-distance trade, which was predominant for a long time [7] ' and the close connection between merchants and maritime shipping made it a "decidedly bourgeois trade" with a distinctly "anti-feudal character", which also exerted a lasting influence on the entire development of society. [MEW 21: 394] In this context, Engels attested to the Hanseatic League that it ensured "the elevation of the whole of northern Germany from medieval barbarism through its hundred-year monopoly of the sea". [MEW 7: 330]

The considerable upswing in maritime shipping under feudalism was initially driven by the Italian city-states, which established themselves as the center of Levantine trade through the Crusades, but especially through the elimination of Constantinople. Venice occupied a prominent position among them. At the height of its power, it possessed around 3,000 merchant ships and 45 warships to protect them. The ship crews included around 36,000 sailors. These for

Engels' remark that the beginnings of industrial capital, based on wage labor, were already evident in the Middle Ages, not only in mining and the textile industry, but also in the shipping companies of the

"Italian and Hanseatic maritime republics". [MEW 25: 913 f.].

At the same time, the boom of the Italian city-states proves the extraordinary advantages of a favorable traffic situation for the overall economic situation of an area, while on the other hand the example of Bruges - an important transshipment point for both Hanseatic and Levantine trade from the 13th to the mid-15th century - shows how the loss of favorable traffic conditions (in Bruges due to the silting up of the harbor) could radically worsen the economic importance of a city at that time.

The shipping of the Haase was just as important for northern and central Europe as that of the Italian city republics in the Levant region, even if it was less extensive. For the 14th century, it is estimated that the Haase had a merchant fleet of around 1,000 ships with a carrying capacity of 60,000 to 80,000 tons. The annual transport volume handled by these ships can be estimated at 3-4 times [599] the tonnage. In contrast, only around 1,200 tons of goods passed through the St. Gotthard Pass, the most important trade route in Upper Germany to the south at the time, with the largest share of traffic between Germany and Italy.

The dominant ship type of the Hanseatic League was the cog [9: 7] ' a broad, high-sided single-masted ship with an undivided sail. At the beginning of the 15th century it was replaced by the larger Holk. Its most striking features were the new planking (no longer overlapping like bricks, but set smoothly against each other) and the change in rigging through the use of three masts. This type of ship had great advantages for shipping, as it had more favorable sailing characteristics and made it possible to shorten the sailing time. The Haase was able to maintain its leading position in shipping well into the 17th century, even if it had already lost some of its most important privileges and its leading position in shipbuilding before then; despite the geographical discoveries, the old transport connections remained stable for a long time. It was only the economic upswing, especially on the American continent, that led to the more rapid development of Atlantic shipping from the 19th century onwards. [9: 12] [13] However, the Thirty Years' War was followed by a period of stagnation in German shipping lasting more than a hundred years, mainly due to the fact that large parts of the German coast were under foreign rule.

Hanseatic shipping had benefited from the fact that for centuries Germany had enjoyed an extremely favorable position as the intersection of the major trade routes between East and West, North and South. In connection with the increasing shift of East-West trade from the Baltic and North Sea coasts to the interior, inland transportation also grew considerably, with an increasing connection to production. The development of capitalist elements in mining and textile production necessitated more extensive transportation of raw materials and finished products, not only in the local area but also over long distances. Both road and waterway transportation were used. Due to the increasing burden of customs duties on the rivers, from the end of the 17th and beginning of the 18th century onwards there was an increasing shift of transportation to the roads, also favoured by the fact that the sovereigns had been endeavouring to improve road conditions since around the second half of the 17th century. On the one hand, they were forced to do so for military reasons - because the army now carried heavy artillery and wagons into battle to a greater extent - ' they needed better roads, but also for administrative reasons, and finally they were interested in good connections for the emerging provincial posts, because the post as a sovereign regal now ensured them high revenues. In the meantime, the medieval messenger posts had developed into regular postal traffic due to the increasing need for the transmission of news as a result of expanding trade and commercial production. The general accessibility of the newly created postal connections also led to a decisive qualitative leap in the transmission of news. The first public postal service in Germany was the Imperial Post Office of the Thurn und Taxis towards the end of the 16th century in connection with the promulgation of the imperial

Postal Regal. The Rum and Taxis had previously organized the "imperial postal rates" required to maintain and increase the power of the German emperors for around a century.

[5] With imperial support, they greatly expanded their postal network in the following period. In the middle of the 17th century, Prussia began to establish its own national postal service in fierce resistance to the imperial postal regulations. Other German states followed suit. The [600] state posts secured high revenues for the state treasury, as they claimed the exclusive right to commercial postal and passenger transportation for the territories under their control. They therefore also influenced the improvement of roads and the further development of carriages for passenger transportation.

Literature:

1 *Birk, A.*: Die Straße. Karlsbad 1934; 2. *Dopsch, A.*: Die Wirtschaftsentwicklung der Karolingerzeit, vornehmlich in Deutschland. T. 1, 3rd ed., Weimar 1962; 3. *Fürst, A.*: Das Weltreich der Technik. Vol. 2, Berlin 1924; 4. *Gönnenwein, O.*: Das Stapel- und Niederlagsrecht. Weimar 1939; 5. *Görs, G.*: Thurn und Taxissches Postwesen, sein Regal und die Ursachen der Verleihung des Regals. Rostock 1907; 6. *Hartmann, E.*: Entwicklungsgeschichte der Posten von der ältesten Zeit bis zur Gegenwart. Leipzig 1868; 7. *Hennig, R.*: Abhandlungen zur Geschichte der Schifffahrt. Jena 1928; 8. *Kulischer, J.*: Allgemeine Wirtschaftsgeschichte des Mittelalters und der Neuzeit. Vol. 1, Berlin 1954; 9. *Olech- nowitz, K. F.*: Der Schiffbau der hansischen Spätzeit. Eine Untersuchung zur Sozial- und Wirtschafts- geschichte der Haase, in: Abhandlungen zur Handels- und Sozialgeschichte. Vol. 3, Weimar 1960; 10. *Rörig, F.*: Wirtschaftskräfte im Mittelalter. Weimar 1959; 11. *Schneider, J.*: Die alten Heer- und Handelswege der Germanen, Römer und Franken. Leipzig 1885; 12. *Voigt, F.*: Verkehr. Vol. 2, T. 1, Berlin (West) 1965.

Elfriede Rehbein

[603]